

PC: J. Book
Don Wallace
Joe Spawley
→

SISKIN STEEL & SUPPLY CO.



P. O. BOX 1191

423/756-3671

1901 RIVERFRONT PARKWAY
CHATTANOOGA, TENNESSEE 37401

February 14, 2002

RECEIVED

FEB 25 2002

JWS
LAW DEPT.

Mr. David Diederich, Plant Manager
United States Pipe and Foundry Company
Chattanooga Valve and Fittings Plant
P.O. Box 311
Chattanooga, TN 37401-0311

Re: Foundry Waste Landfill

Dear Mr. Diederich:

This will acknowledge my receipt of the letter dated April 5, 2001 from Charles F. Priddy, Jr. of Priddy Engineering, together with the enclosures contained therein. One of the enclosures was a copy of a portion of U.S. Pipe's operating permit bearing a registration number of IDL 33-0102. We understand that you have requested our consent to place foundry waste no nearer than fifty (50) feet to the common property line of our respective properties. Subject to your agreeing to the conditions which are set forth in this letter, we hereby issue our permission for U.S. Pipe and Foundry Company to place foundry sand waste no closer than fifty (50) feet to our property line. Our permission is conditioned upon U.S. Pipe and Foundry Company ("You") agreeing to the following terms:

1. You will maintain the road and fence between the landfill and our property line.
2. Other than groundwater monitoring wells, you will not construct or cause to be constructed any other appurtenances associated with the landfill beyond the edge of the road which is closest to the landfill.
3. You at all times will be in compliance with any and all existing and future regulatory requirements of the City of Chattanooga, the State of Tennessee, the United States Environmental Protection Agency and any other governmental entities that may have jurisdiction.
4. You will place foundry waste only in the landfill, and will not permit any type of hazardous waste to be placed in the landfill.



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SISKIN STEEL AND SUPPLY CO., INC.

Mr. David Diederich
February 14, 2002
Page 2

5. You will maintain the landfill and the road between the landfill and our property line in such a manner so as to not allow any leaching or other runoff from the landfill onto our property.
6. You will constantly maintain and operate the groundwater monitoring wells, and shall not cease to use such wells without our written consent.
7. You will defend, indemnify and hold Siskin Steel harmless from any and all liability resulting from this authorization and from the operation of the landfill.

Yours truly,

SISKIN STEEL & SUPPLY CO., INC.

By: David Garland
David Garland, V.P. - Plant & Equipment

DG:lm

cc: Mr. Chuck Priddy
Priddy Engineering
221 Golf Club Drive
Sevierville, TN 37876

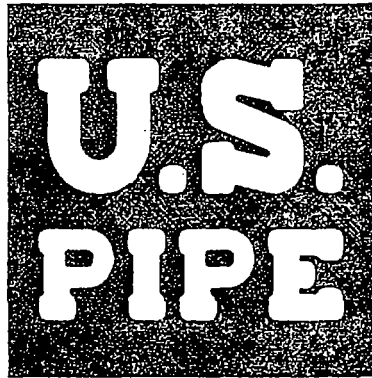
CONSENT

U.S. Pipe & Foundry Company hereby consents and agrees to each of the terms and conditions set forth above to be performed by U.S. Pipe & Foundry Company.

This the 21st day of February, 2002.

U.S. PIPE & FOUNDRY COMPANY

By: David Diederich
David Diederich, Plant Manager



**TITLE V
OPERATING PERMIT
APPLICATION**

**U. S. PIPE AND FOUNDRY
COMPANY, INC.**

**CHATTANOOGA
VALVE & FITTINGS
PLANT**

BOOK 2 of 4

MWPS008630

Form 70-03

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|----|--|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV01 Brass Furnace Baghouse Stack (01C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV001 - EV002 Brass Furnaces #1 & #2 | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | | | | |
| 6 | Inside dimensions at outlet in feet | | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 15,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 15,000 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient plus 20 | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |

COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK.

| | | | |
|----|---|------------------------------|--|
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | |
| 14 | Page Number 1 | Revision Number | Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37403-2405

MWPS008632

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV02 Fugitive Emissions from Brass Melting | | | |
| 3 | Give identification number for each process that emits through this stack | EV001- 02 Brass Furnaces #1 & #2, EV003 Pouring Ladle, EV004 Ladle Pre-heating, EV015 - 17 Shell Molding Machines & Pasting, EV018 - 21 Core Making | | | |
| 4 | Stack height above grade (feet) | Not Applicable | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | Not Applicable | | | |
| 6 | Inside dimensions at outlet in feet | Not Applicable | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | Not Applicable | | | |
| 8 | Flow rate at standard conditions (DSCFM) | Not Applicable | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number 4-2 | Revision Number | Date of Revision | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2405

MWPS008633

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|----|--|--|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV03 Stack Emissions from Shell Mold Pouring (07C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV005 Shell Mold Pouring | | | |
| 4 | Stack height above grade (feet) | 35 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | | | | |
| 6 | Inside dimensions at outlet in feet | | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 16,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 16,000 | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SO _x , NO _x , etc.)? | | | | |

COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK.

| | | | |
|----|---|---|------------------|
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | |
| 14 | Page Number V-3 | Revision Number | Date of Revision |

3/04/96

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 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2405

MWPS008634

Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|--|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV04 Fugitive Emissions from the Brass Foundry | | | |
| 3 | Give identification number for each process that emits through this stack | EV005 Shell Mold Pouring, EV006 Greensand Mold Pouring, EV007 Greensand Shakeout | | | |
| 4 | Stack height above grade (feet) | Not Applicable | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | Not Applicable | | | |
| 6 | Inside dimensions at outlet in feet | Not Applicable | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | Not Applicable | | | |
| 8 | Flow rate at standard conditions (DSCFM) | Not Applicable | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number V-A | Revision Number | Date of Revision | | |

3/04/96

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Chattanooga, Tennessee 37407-2405

MWPS008635

Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV05 Stack Emissions from Greensand Shakeout | | | |
| 3 | Give identification number for each process that emits through this stack | EV007 Greensand Shakeout | | | |
| 4 | Stack height above grade (feet) | 35 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | | | | |
| 6 | Inside dimensions at outlet in feet | | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | | | | |
| 8 | Flow rate at standard conditions (DSCFM) | | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number 4-5 | Revision Number | Date of Revision | | |

3/04/96

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3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2105

MWPS008636

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV06 Tumble Blast Baghouse Stack (03C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV008 - EV009 Tumble Blast Machines | | | |
| 4 | Stack height above grade (feet) | 16 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 34 | | | |
| 6 | Inside dimensions at outlet in feet | 1.2 x 1.3 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 3220 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 3220 | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number 7-6 | Revision Number | Date of Revision | | |

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 Chattanooga, Tennessee 37407-2405

MWPS008637

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|--|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV07 Pedestal Grinder Baghouse Stack (02C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV010 Brass Cut-Off Saw, EV011 Belt Grinder, EV012 Pedestal Grinders | | | |
| 4 | Stack height above grade (feet) | 20 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 48 | | | |
| 6 | Inside dimensions at outlet in feet | 1.25 X 1.25 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 4500 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 4500 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number V-7 | Revision Number | Date of Revision | | |

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3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2405

MWPS008638

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV08 Greensand Mullor Baghouse Stack (11C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV013 Greensand Mullor | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | | | | |
| 6 | Inside dimensions at outlet in feet | | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 3500 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 3500 | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number 4-3 | Revision Number | Date of Revision | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2405

MWPS008639

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV09 Fugitive Emissions from Greensand Molding Operations | | | |
| 3 | Give identification number for each process that emits through this stack | EV013 Greensand Mullor, EV014 Greensand Molding Operations | | | |
| 4 | Stack height above grade (feet) | Not Applicable | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | Not Applicable | | | |
| 6 | Inside dimensions at outlet in feet | Not Applicable | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | Not Applicable | | | |
| 8 | Flow rate at standard conditions (DSCFM) | Not Applicable | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number 7-01 | Revision Number | Date of Revision | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard

MWPS008640

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV10 Shell Mold Pasting & Cooling Baghouse (05C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV017 Shell Mold Pasting & Cooling | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | | | | |
| 6 | Inside dimensions at outlet in feet | | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 1750 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 1750 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient plus 20 | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number V-10 | Revision Number | Date of Revision | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2405

MWPS008641

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|----|--|--|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV11 Small Valve Spray Paint Booth Stack (12C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV022 Small Valve Spray Paint Booth | | | |
| 4 | Stack height above grade (feet) | 25 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 26.5 | | | |
| 6 | Inside dimensions at outlet in feet | 2.8 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 10,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 10,000 | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |

COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK.

| | | | |
|----|---|------------------------------|--|
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | |
| 14 | Page Number V-11 | Revision Number | Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2405

MWPS008642

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV12 Fugitive Emissions from Touch-Up Coating of Large Valves | | | |
| 3 | Give identification number for each process that emits through this stack | EV023 Touch-Up Coating of Large Valves | | | |
| 4 | Stack height above grade (feet) | Not Applicable | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | Not Applicable | | | |
| 6 | Inside dimensions at outlet in feet | Not Applicable | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | Not Applicable | | | |
| 8 | Flow rate at standard conditions (DSCFM) | Not Applicable | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| 14 | Page Number V-12 | Revision Number | Date of Revision | | |

3/04/96

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 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2105

MWPS008643

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV13 Hydrant Assembly Spray Paint Booth Stack (13C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV024 Hydrant Assembly Spray Paint Booth | | | |
| 4 | Stack height above grade (feet) | 25 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 26.5 | | | |
| 6 | Inside dimensions at outlet in feet | 2.8 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 10,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 10,000 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number V-13 | Revision Number | Date of Revision | | |

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MWPS008644

**Major Source Operating Permit Application
Stack Identification**

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV14 Pangborn Rotoblast Cleaner Baghouse Stack (45C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV025 Pangborn Rotoblast Cleaner | | | |
| 4 | Stack height above grade (feet) | 25 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 45.4 | | | |
| 6 | Inside dimensions at outlet in feet | 1.5 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 4814 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 4814 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number | Revision Number | Date of Revision | | |
| | 14 | | | | |

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MWPS008645

Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV15 Pangborn Air Blast Baghouse Stack (04C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV026 Pangborn Air Blast Cleaner | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 51.7 | | | |
| 6 | Inside dimensions at outlet in feet | 1.4 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 4500 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 4500 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number | Revision Number | Date of Revision | | |
| | V-15 | | | | |

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MWPS008646

Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV16 Stack Emissions from GLA Oven (49C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV027 GLA Oven | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 64 | | | |
| 6 | Inside dimensions at outlet in feet | 1.0 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 3000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 3000 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | 140 | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number | Revision Number | Date of Revision | | |
| | 7-16 | | | | |

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Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV17 Stack Emissions from Porbeck Oven (48C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV028 Porbeck Oven | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 10.7 | | | |
| 6 | Inside dimensions at outlet in feet | 0.8 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 350 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | About 350 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | 140 | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SO _x , NO _x , etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number | Revision Number | Date of Revision | | |
| | ✓-17 | | | | |

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Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV18 Line #1 Powder Coating Baghouse Stack (49C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV029 Line #1 Powder Coating | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 53 | | | |
| 6 | Inside dimensions at outlet in feet | 2.0 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 10,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 10,000 | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions) (percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SO _x , NO _x , etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number | Revision Number | Date of Revision | | |
| | V-18 | | | | |

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MWPS008649

Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV19 Line #2 Powder Coating Baghouse Stack (48C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV030 Line #2 Powder Coating | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 53 | | | |
| 6 | Inside dimensions at outlet in feet | 2.0 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 10,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 10,000 | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number | Revision Number | Date of Revision | | |
| | V-19 | | | | |

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MWPS008650

Major Source Operating Permit Application
Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV20 Fugitive Emissions from Lead/Babbit Melting (09C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV031- 32 Lead Kettle Melting & Heating | | | |
| 4 | Stack height above grade (feet) | 15 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | Not Applicable | | | |
| 6 | Inside dimensions at outlet in feet | Not Applicable | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | Not Applicable | | | |
| 8 | Flow rate at standard conditions (DSCFM) | Not Applicable | | | |
| 9 | Exhaust temperature (degrees Fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number γ - 20 | Revision Number | Date of Revision | | |

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MWPS008651

**Major Source Operating Permit Application
Stack Identification**

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV21 Stack Emissions from RS Valve Burn-Off Oven (53C) | | | |
| 3 | Give identification number for each process that emits through this stack | EV033 RS Valve Burn-Off Oven | | | |
| 4 | Stack height above grade (feet) | 20 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 8.14 | | | |
| 6 | Inside dimensions at outlet in feet | 1.0 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 383.2 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 98 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | 1600 | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number 4-21 | Revision Number | Date of Revision | | |

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Major Source Operating Permit Application Stack Identification

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV22 - 23 Bathhouse Water Heaters Stacks | | | |
| 3 | Give identification number for each process that emits through this stack | EV034 - 35 Bathhouse Water Heaters | | | |
| 4 | Stack height above grade (feet) | 10 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | Not Applicable | | | |
| 6 | Inside dimensions at outlet in feet | Not Applicable | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | Not Applicable | | | |
| 8 | Flow rate at standard conditions (DSCFM) | Not Applicable | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | 120 | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number 4-22 | Revision Number | Date of Revision | | |

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MWPS008653

**Major Source Operating Permit Application
Stack Identification**

Form 70-03

| | | | | | |
|--|---|---|----------------------------------|----------------------------|----------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | | For APCB use only | Company No. |
| 2 | Stack ID (or flow diagram point identification) | SV24 Miscellaneous Epoxy Coating Spray Paint Booth Stack | | | |
| 3 | Give identification number for each process that emits through this stack | EV036 Miscellaneous Epoxy Coating Spray Paint Booth | | | |
| 4 | Stack height above grade (feet) | 25 | | | |
| 5 | Velocity (data at exit conditions) in actual feet per second | 27 | | | |
| 6 | Inside dimensions at outlet in feet | 2.8 | | | |
| 7 | Exhaust flow rate at exit conditions (ACFM) | 10,000 | | | |
| 8 | Flow rate at standard conditions (DSCFM) | 10,000 | | | |
| 9 | Exhaust temperature (degrees fahrenheit) | Ambient | | | |
| 10 | Moisture content (data at exit conditions)(percent) | Ambient | | | |
| 11 | Stack location (coordinates in meters) | UTM North 3877.376 km | UTM East Zone 16 - 653.395 km | | |
| 12 | If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., opacity, SOx, NOx, etc.)? | | | | |
| COMPLETE THE APPROPRIATE FORM(S) 70-04, 70-06, 70-07, 70-08, 70-09, OR 70-10 FOR EACH SOURCE EMITTING FROM THIS STACK. | | | | | |
| 13 | Is there a bypass stack? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | |
| | If yes, describe the conditions which require its use & complete form 70-03 for the bypass stack. Please identify the stack number(s) or flow diagram point number(s) exhausting through this bypass stack. | | | | |
| 14 | Page Number V-23 | Revision Number | Date of Revision | | |

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MWPS008654

Form 70-04

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | | |
|----|---|-----------------|-------------------------------------|-------------------|------------------|------------|----------------------|--------------------|-----|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Heating torches | | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV004 Ladle Preheaters | | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV02 | | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | Not Applicable | | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | | |
| 8 | Manufacturer: | | Generic | | | | | | | | |
| | Model Number: | | Not Available | | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | | |
| 9 | a. Type(s) of Fuel | | b. Rated Capacity in Million BTU/HR | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | Primary: | Natural gas | 0.538 | Proportional mix | d. Average | d. Maximum | e. Annual | Sulfur | Ash | 1000 BTU/cf | |
| | Normal operating fuel(s) | | | | | | 1.621 MMcf/yr | 0.2 gr/cf | | | |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North | | | | East | | | | |
| | | | 3877.376 km | | | | Zone - 16 653.395 km | | | | |
| 13 | Normal operating schedule | | 12 | | | | Hours/Day | | | | |
| | | | 5 | | | | Days/Week | | | | |
| | | | 220 | | | | Days/Year | | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | | |
| 15 | Page Number | Revision Number | | Date of Revision | | | | | | | |
| | V-1 | | | | | | | | | | |

3/04/96

MWPS008656

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | |
|----|---|---|-------------------------------------|------------------|------------|------------------------------|--------------------|-----|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Shell Mold Heating | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV016 Shell Mold Machines | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV02 | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | Not Applicable | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | |
| 8 | Manufacturer: | | Shalco | | | | | | | |
| | Model Number: | | Not Available | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | |
| 9 | a. Type(s) of Fuel | b. Rated Capacity in Million BTU/HR Input | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | | | | d. Average | d. Maximum | e. Annual | Sulfur | Ash | | |
| | Primary: Natural gas | 1.78 | Pre mix | | | 1.038 MMcf/yr | 0.2 gr/ccf | | 1000 BTU/cf | |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North 3877.376 km | | | East Zone - 16 653.395 km | | | | |
| 13 | Normal operating schedule | | 8 | | | Hours/Day | | | | |
| | | | 2 | | | Days/Week | | | | |
| | | | 100 | | | Days/Year | | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | |
| 15 | Page Number V-2 | | Revision Number | | | Date of Revision | | | | |

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MWPS008657

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | |
|----|---|---|-------------------------------------|------------------|------------|----------------------|--------------------|------------|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Shell Core Heating | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV018 - 19 Shell Core Machines | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV02 | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | Not Applicable | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | |
| 8 | Manufacturer: | | Shalco | | | | | | | |
| | Model Number: | | Not Available | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | |
| 9 | a. Type(s) of Fuel | b. Rated Capacity in Million BTU/HR Input | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | | | | d. Average | d. Maximum | e. Annual | Sulfur | Ash | | |
| | Primary: Normal operating fuel(s) | Natural gas | 1.22 | Pre mix | | | 0.259 MMcf/yr | 0.2 gr/ccf | | 1000 BTU/cf |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North | | | East | | | | |
| | | | 3877.376 km | | | Zone - 16 653.395 km | | | | |
| 13 | Normal operating schedule | | 8 | | | Hours/Day | | | | |
| | | | 1 | | | Days/Week | | | | |
| | | | 50 | | | Days/Year | | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | |
| 15 | Page Number | | Revision Number | | | Date of Revision | | | | |
| | V-3 | | | | | | | | | |

3/04/96

MWPS008658

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | |
|----|---|---|-------------------------------------|------------------|------------|----------------------|--------------------|-----|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Direct-Fire Burner | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV027 GLA Oven | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV16 | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | 1990 | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | |
| 8 | Manufacturer: | | GLA | | | | | | | |
| | Model Number: | | Not Available | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | |
| 9 | a. Type(s) of fuel | b. Rated Capacity in Million BTU/Hr Input | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | | | | d. Average | d. Maximum | e. Annual | Sulfur | Ash | | |
| | Primary: Natural gas | | Proportional mix | | | 3.764 MMcf/yr | 0.2 gr/ccf | | 1000 BTU/cf | |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North | | | East | | | | |
| | | | 3877.376 km | | | Zone - 16 653.395 km | | | | |
| 13 | Normal operating schedule | | 8 | | | Hours/Day | | | | |
| | | | 5 | | | Days/Week | | | | |
| | | | 220 | | | Days/Year | | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | |
| 15 | Page Number | | Revision Number | | | Date of Revision | | | | |
| | V-4 | | | | | | | | | |

3/04/96

MWPS008659

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | |
|----|---|---|-------------------------------------|------------------|------------|----------------------|--------------------|-----|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Direct-Fire Burner | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV028 Porbeck Oven | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV17 | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | 1986 | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | |
| 8 | Manufacturer: | | Porbeck | | | | | | | |
| | Model Number: | | Not Available | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | |
| 9 | a. Type(s) of Fuel | b. Rated Capacity in Million BTU/Hr Input | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | | | | d. Average | d. Maximum | e. Annual | Sulfur | Ash | | |
| | Primary: Normal operating fuel(s): | Natural gas | Proportional mix | | | 3.584 MMcf/yr | 0.2 gr/ccf | | 1000 BTU/cf | |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North | | | East | | | | |
| | | | 3877.376 km | | | Zone - 16 653.395 km | | | | |
| 13 | Normal operating schedule | | 8 | | | Hours/Day | | | | |
| | | | 5 | | | Days/Week | | | | |
| | | | 220 | | | Days/Year | | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | |
| 15 | Page Number | | Revision Number | | | Date of Revision | | | | |
| | V-5 | | | | | | | | | |

3/04/96

MWPS008660

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | |
|----|---|---|--|------------------|------------|---------------|------------------------------|-----|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Kettle Burner | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV031 - 32 Lead/Babbitt Kettle Melting | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV20 | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | Before 1/1/73 | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | |
| 8 | Manufacturer: | | Generic | | | | | | | |
| | Model Number: | | Not Available | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | |
| 9 | a. Type(s) of Fuel | b. Rated Capacity in Million BTU/HR Input | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | | | | d. Average | d. Maximum | e. Annual | Sulfur | Ash | | |
| | Primary: Normal operating fuel(s) | Natural gas | Proportional mix | | | 0.324 MMcf/yr | 0.2 gr/ccf | | 1000 BTU/cf | |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North 3877.376 km | | | | East Zone - 16 653.395 km | | | |
| 13 | Normal operating schedule | | 8 | | | | Hours/Day | | | |
| | | | 3 | | | | Days/Week | | | |
| | | | 150 | | | | Days/Year | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | |
| 15 | Page Number 1-6 | | Revision Number | | | | Date of Revision | | | |

3/04/96

MWPS008661

Major Source Operating Permit Application Fuel Burning Equipment

Form 70-04

| | | | | | | | | | | | |
|----|---|-------------|---|-------------------|------------------|------------|------------------------------|--------------------|-----|----------------------------|----------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | | | | | | | | |
| 2 | Type of fuel burning equipment: (A form 70-04 must be completed for each piece of fuel burning equipment.) | | Direct-Fire Burner | | | | | | | | |
| 3 | Fuel burning equipment identification # | | EV033 RS Valve Burn-Off Oven | | | | | | | | |
| 4 | Stack ID (or flow diagram point identification) | | SV21 | | | | | | | | |
| 5 | Fuel burning equipment description: | | | | | | | | | | |
| 6 | Year of installation or last modification of fuel burning equipment: | | 1995 | | | | | | | | |
| 7 | Furnace type: | | Not Applicable | | | | | | | | |
| 8 | Manufacturer: | | Ace | | | | | | | | |
| | Model Number: | | Not Available | | | | | | | | |
| | Year of Manufacture: | | Not Available | | | | | | | | |
| 9 | a. Type(s) of Fuel | | b. Rated Capacity in Million BTU/HR Input | c. Type of Firing | Fuel Consumption | | | f. Percent Content | | g. Heating Content of Fuel | (%) Excess Air |
| | Primary: | Natural gas | | Proportional mix | d. Average | d. Maximum | e. Annual | Sulfur | Ash | | |
| | Normal operating fuel(s) | | | | | | 0.184 MMcf/yr | 0.2 gr/ccf | | 1000 BTU/cf | |
| | Standby #1: Fuel(s) used in emergency only | | | | | | | | | | |
| | Standby #2: Fuel(s) used in emergency only | | | | | | | | | | |
| 10 | If emissions from this fuel burning equipment are controlled for compliance, specify the type of control: | | | | | | | | | | |
| 11 | If emissions from this fuel burning equipment are monitored for compliance, specify the type of monitoring: | | | | | | | | | | |
| 12 | Location of this fuel burning equipment in UTM coordinates: | | North 3877.376 km | | | | East Zone - 16 653.395 km | | | | |
| 13 | Normal operating schedule | | 8 | | | | Hours/Day | | | | |
| | | | 1 | | | | Days/Week | | | | |
| | | | 40 | | | | Days/Year | | | | |
| 14 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (Attach a separate sheet if necessary.) | | | | | | | | | | |
| 15 | Page Number V-1 | | Revision Number | | | | Date of Revision | | | | |

3/04/96

MWPS008662

Form 70-06

Major Source Operating Permit Application
Storage Tanks

Form 70-06

| | | | |
|--|---|---|------------------------------|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | |
| 2 | Storage Tank Description | Paint tote tank at Small Valve Assembly | |
| 3 | Equipment Identification Number: | | |
| 4 | Location of the storage tank or tank farm in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km |
| 5 | Storage tank capacity in gallons | 300 | |
| 6 | Year of installation | 1980 | |
| 7 | Tank height in feet | 3.5 | |
| 8 | Tank diameter in feet | 3.5 x 3.5 | |
| 9 | Tank color | Silver | |
| 10 | Is this tank equipped with submerged fill pipe? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| 11 | Type of storage tank | <input type="checkbox"/> Open top tank <input type="checkbox"/> Fixed roof w/internal floating roof <input type="checkbox"/> Pressurized tank <input type="checkbox"/> Variable vapor space <input checked="" type="checkbox"/> Fixed roof <input type="checkbox"/> Other <input type="checkbox"/> External floating roof (Specify) | |
| FOR FIXED ROOF TANKS | | | |
| 12 | A. Tank configuration (check one) | <input checked="" type="checkbox"/> Vertical (upright cylinder) <input type="checkbox"/> Horizontal | |
| | B. Tank roof type (check one) | <input type="checkbox"/> Cone roof <input type="checkbox"/> Dome roof | |
| | C. Tank roof height in feet | 4 | |
| | D. Shell radius in feet | | |
| FOR FLOATING ROOF TANKS (BOTH INTERNAL AND EXTERNAL) | | | |
| 13 | Shell condition (check one) | <input type="checkbox"/> Light rust <input type="checkbox"/> Dense rust <input type="checkbox"/> Gunitite Lined | |
| FOR EXTERNAL FLOATING ROOF TANKS | | | |
| 14 | A. Tank construction (check one) | <input type="checkbox"/> Welded <input type="checkbox"/> Riveted | |
| | B. Rim seal system description (check one) | <input type="checkbox"/> Shoe mounted primary <input type="checkbox"/> Shoe primary and secondary <input type="checkbox"/> Shoe primary, rim secondary <input type="checkbox"/> Liquid mounted primary <input type="checkbox"/> Liquid primary w/weather shield <input type="checkbox"/> Liquid primary, rim secondary <input type="checkbox"/> Vapor mounted primary <input type="checkbox"/> Vapor primary w/weather shield <input type="checkbox"/> Vapor primary, rim secondary | |

MWPS008664

| FOR INTERNAL FLOATING ROOF TANKS (continued) | | | | |
|--|---|---|--|---|
| 15 | G. Deck fitting types (indicate the number of each type) (continued) | <i>Ladder well</i> | | <i>Vacuum breaker</i> |
| | | Sliding cover, gasketed | | Weighted mechanical actuation gasketed |
| | | Sliding cover, ungasketed | | Weighted mechanical actuation ungasketed |
| | | <i>Sample pipe or well</i> | | <i>Column well</i> |
| | | Slotted pipe-sliding cover, gasketed | | Built-up column - sliding cover, gasketed |
| | | Slotted pipe-sliding cover, ungasketed | | Built-up column - sliding cover, ungasketed |
| | | Sample well-slit fabric seal, 10% open area | | Pipe column - flexible fabric sleeve seal |
| | | Stub drain, 1 inch diameter | | Pipe column - sliding cover, gasketed |
| | | <i>Roof leg or hanger well</i> | | Pipe column - sliding cover, ungasketed |
| | | Adjustable | | |
| Fixed | | | | |

| FOR VARIABLE VAPOR SPACE TANKS | |
|--------------------------------|--|
| 16 | Volume expansion capacity (in gallons) |

| COMPLETE THE FOLLOWING TABLE FOR MATERIALS TO BE STORED IN THIS TANK | | | | | | | |
|--|---------------|-------------------------------------|---------------------------------------|--|----------------------------------|--|---|
| Material or component stored | WT% | Material annual throughput (gal/yr) | Material stored - daily average (gal) | Component molecular weights (lb/lb mole) | Component vapor pressures (PSIA) | Material storage pressure (PSIA) | Material average storage temp. (Deg. F) |
| 17 | Asphalt paint | 100 | 900 | 50 | | Ambient | Ambient |
| | | | | | | | |
| | | | | | | | |
| Multipurpose tank with variable composition | | | | | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | |

| | | |
|----|---|-------------------------------------|
| 18 | Describe the operation this tank will serve | Paint is stored for spray painting. |
| | | |

| | | | |
|----|--------------------|-----------------|------------------|
| 19 | Page Number V-1 | Revision Number | Date of Revision |
|----|--------------------|-----------------|------------------|

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard

MWPS008665

Major Source Operating Permit Application
Storage Tanks

Form 70-06

| | | | |
|--|---|--|---|
| 1 | Facility Name | U.S. Pipe and Foundry Company, Inc. | |
| 2 | Storage Tank Description | Paint tote tank at Hydrant Assembly | |
| 3 | Equipment Identification Number: | | |
| 4 | Location of the storage tank or tank farm in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km |
| 5 | Storage tank capacity in gallons | 300 | |
| 6 | Year of installation | 1980 | |
| 7 | Tank height in feet | 3.5 | |
| 8 | Tank diameter in feet | 3.5 x 3.5 | |
| 9 | Tank color | Silver | |
| 10 | Is this tank equipped with submerged fill pipe? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 11 | Type of storage tank | <input type="checkbox"/> Open top tank <input type="checkbox"/> Pressurized tank <input type="checkbox"/> Fixed roof <input type="checkbox"/> External floating roof | <input type="checkbox"/> Fixed roof w/internal floating roof <input type="checkbox"/> Variable vapor space <input type="checkbox"/> Other (Specify) |
| FOR FIXED ROOF TANKS | | | |
| 12 | A. Tank configuration (check one) | <input checked="" type="checkbox"/> Vertical (upright cylinder) | <input type="checkbox"/> Horizontal |
| | B. Tank roof type (check one) | <input type="checkbox"/> Cone roof | <input type="checkbox"/> Dome roof |
| | C. Tank roof height in feet | 4 | |
| | D. Shell radius in feet | | |
| FOR FLOATING ROOF TANKS (BOTH INTERNAL AND EXTERNAL) | | | |
| 13 | Shell condition (check one) | <input type="checkbox"/> Light rust | <input type="checkbox"/> Dense rust <input type="checkbox"/> Gunite Lined |
| FOR EXTERNAL FLOATING ROOF TANKS | | | |
| 14 | A. Tank construction (check one) | <input type="checkbox"/> Welded | <input type="checkbox"/> Riveted |
| | B. Rim seal system description (check one) | <input type="checkbox"/> Shoe mounted primary <input type="checkbox"/> Shoe primary, rim secondary <input type="checkbox"/> Liquid primary w/weather shield <input type="checkbox"/> Vapor mounted primary <input type="checkbox"/> Vapor primary, rim secondary | <input type="checkbox"/> Shoe primary and secondary <input type="checkbox"/> Liquid mounted primary <input type="checkbox"/> Liquid primary, rim secondary <input type="checkbox"/> Vapor primary w/weather shield |

MWPS008666

| FOR INTERNAL FLOATING ROOF TANKS (continued) | | | | | |
|--|---|--------------------------------|---|-----------------------|---|
| 15 | G. Deck fitting types (indicate the number of each type) (continued) | <i>Ladder, well</i> | | <i>Vacuum breaker</i> | |
| | | | Sliding cover, gasketed | | Weighted mechanical actuation gasketed |
| | | | Sliding cover, ungasketed | | Weighted mechanical actuation ungasketed |
| | | <i>Sample pipe or well</i> | | <i>Column well</i> | |
| | | | Slotted pipe-sliding cover, gasketed | | Built-up column - sliding cover, gasketed |
| | | | Slotted pipe-sliding cover, ungasketed | | Built-up column - sliding cover, ungasketed |
| | | | Sample well-slit fabric seal, 10% open area | | Pipe column - flexible fabric sleeve seal |
| | | | Stub drain, 1 inch diameter | | Pipe column - sliding cover, gasketed |
| | | <i>Roof leg or hanger well</i> | | | |
| | | Adjustable | | | |
| Fixed | | | | | |

| FOR VARIABLE VAPOR SPACE TANKS | |
|--------------------------------|--|
| 16 | Volume expansion capacity (in gallons) |

| COMPLETE THE FOLLOWING TABLE FOR MATERIALS TO BE STORED IN THIS TANK | | | | | | | | |
|--|------------------------------|-----|-------------------------------------|---------------------------------------|--|----------------------------------|--|---|
| | Material or component stored | WT% | Material annual throughput (gal/yr) | Material stored - daily average (gal) | Component molecular weights (lb/lb mole) | Component vapor pressures (PSIA) | Material storage pressure (PSIA) | Material average storage temp. (Deg. F) |
| 17 | Asphalt paint | 100 | 1600 | 50 | | | Ambient | Ambient |
| | | | | | | | | |
| | | | | | | | | |
| Multipurpose tank with variable composition | | | | | | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | |

| | | |
|----|---|-------------------------------------|
| 18 | Describe the operation this tank will serve | Paint is stored for spray painting. |
| | | |

| | | | |
|----|--------------------|-----------------|------------------|
| 19 | Page Number V-2 | Revision Number | Date of Revision |
|----|--------------------|-----------------|------------------|

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard

MWPS008667

Form 70-09

Major Source Operating Permit Application Painting & Coating Operations

Form 0-09

| | | | | | | | | | | | | | | |
|--------------------|--|-------------------------------------|-----------|---------------------|--|------------------------------|---|---------------------------------------|-----------|-----|----------------|-----|--------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | 2 | Equipment identification #: | EV022 | | | | | | |
| 3 | Process Description | Small valve painting (Valve Plant) | | | | | | | | | | | | |
| 4 | Year of construction or last modification | 1990 | | | | 5 | Stack ID (or flow diagram point identification) | SV11 | | | | | | |
| 6 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH AN APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. IF THIS OPERATION IS MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | | | | | | | | | | | |
| 7 | Normal operating schedule | 8 | Hours/Day | | 5 | Days/Week | | 48 | Days/Year | | | | | |
| 8 | Oven curing (complete if applicable) | Number of ovens | 0 | Specify oven fuels: | Temperature of coated material as it leaves the oven (degrees F) | | | Total maximum heat input to each oven | | | | | | |
| 9 | Application technique and transfer efficiency (%): | Airless spray painting | | | | | | | | | | | | |
| 10 | Complete the following table - attach additional tables as needed - fill in only the items necessary for determination of compliance with emission standard(s). | | | | | | | | | | | | | |
| | Identify coatings and solvents (name or type of coating) | Maximum usage: | | Normal usage: | Composition: Volume and weight percent as applied | | | | | | | | Density of solvent | Coating density |
| | | gal/hr | gal/mo | gal/mo | Solids | | Solvents (VOCs) | | Water | | Exempt Solvent | | Lbs/Gal | Lbs/Gal |
| | | | | | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | | |
| | B523 asphalt paint | | 125 | 75 | 49 | 57 | 51 | 43 | | | | | 0.893 | 7.448 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | Total inks | | | | | | | | | | | | | |
| | List the solvents used in this operation | | | | | | | | | | | | | |
| | (1): Mineral spirits | | 3.7 | 2.25 | | | | 100 | 100 | | | | | 0.895 |
| (2): | | | | | | | | | | | | | | |
| Clean-up solvents: | | 1.2 | 0.75 | | | | 100 | 100 | | | | | 0.895 | 7.464 |
| Other (specify): | | | | | | | | | | | | | | |
| 11 | Location of this operation in UTM coordinates: | North 3877.376 km | | | | East Zone 16 - 653.395 km | | | | | | | | |
| 12 | Page Number V-1 | Revision Number | | | | Date of Revision | | | | | | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008669

Major Source Operating Permit Application Painting & Coating Operations

Form 0-09

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | 2 | Equipment identification #: | EV024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------------------------------|--------------|---|---|--|---------------------------------------|--|----------------|------|----------------|---|-----------------|---------|--|--|--|--|--|--------------------|-----------------|--------|--------|--------|--------|--|-----------------|--|-------|--|----------------|--|---------|---------|------|-----|------|-----|------|-----|------|-----|---------------|--|-----|-----|----|----|----|----|--|--|--|--|-------|-------|-----------------------------------|--|----|----|--|--|--|--|--|--|--|--|--|-------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|--|------|-----|--|--|-----|-----|--|--|--|--|-------|-------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------------|--|-----|-----|--|--|-----|-----|--|--|--|--|-------|-------|----------------------|--|----|----|--|--|-----|-----|--|--|--|--|--|-------|
| 3 | Process Description | Hydrant painting (Valve Plant) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Year of construction or last modification | 1990 | | 5 | Stack ID (or flow diagram point identification) | SV13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH AN APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. IF THIS OPERATION IS MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Normal operating schedule | 10 | Hours/Day | 5 | Days/Week | 48 | Days/Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Oven curing (complete if applicable) | Number of ovens | 1 | Specify oven fuels: | Electricity | Temperature of coated material as it leaves the oven (degrees F) | Total maximum heat input to each oven | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Application technique and transfer efficiency (%): | Airless spray painting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | <p>Complete the following table - attach additional tables as needed - fill in only the items necessary for determination of compliance with emission standard(s).</p> <table border="1"> <thead> <tr> <th rowspan="3">Identify coatings and solvents (name or type of coating)</th> <th colspan="2">Maximum usage:</th> <th>Normal usage</th> <th colspan="8">Composition: Volume and weight percent as applied</th> <th>Density of solvent</th> <th>Coating density</th> </tr> <tr> <th rowspan="2">gal/hr</th> <th rowspan="2">gal/mo</th> <th rowspan="2">gal/mo</th> <th colspan="2">Solids</th> <th colspan="2">Solvents (VOCs)</th> <th colspan="2">Water</th> <th colspan="2">Exempt Solvent</th> <th rowspan="2">Lbs/Gal</th> <th rowspan="2">Lbs/Gal</th> </tr> <tr> <th>Vol%</th> <th>Wt%</th> <th>Vol%</th> <th>Wt%</th> <th>Vol%</th> <th>Wt%</th> <th>Vol%</th> <th>Wt%</th> </tr> </thead> <tbody> <tr> <td>Asphalt paint</td> <td></td> <td>222</td> <td>133</td> <td>49</td> <td>57</td> <td>51</td> <td>43</td> <td></td> <td></td> <td></td> <td></td> <td>0.893</td> <td>7.448</td> </tr> <tr> <td>Pustoleum paints (various colors)</td> <td></td> <td>90</td> <td>54</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7.903</td> </tr> <tr> <td>Total inks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="14">List the solvents used in this operation</td> </tr> <tr> <td>(1): Mineral spirits</td> <td></td> <td>10.5</td> <td>6.2</td> <td></td> <td></td> <td>100</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td>0.895</td> <td>7.464</td> </tr> <tr> <td>(2):</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Clean-up solvents:</td> <td></td> <td>3.5</td> <td>2.1</td> <td></td> <td></td> <td>100</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td>0.895</td> <td>7.464</td> </tr> <tr> <td>Other (specify): MEK</td> <td></td> <td>42</td> <td>25</td> <td></td> <td></td> <td>100</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6.726</td> </tr> </tbody> </table> | | | | | | | Identify coatings and solvents (name or type of coating) | Maximum usage: | | Normal usage | Composition: Volume and weight percent as applied | | | | | | | | Density of solvent | Coating density | gal/hr | gal/mo | gal/mo | Solids | | Solvents (VOCs) | | Water | | Exempt Solvent | | Lbs/Gal | Lbs/Gal | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Asphalt paint | | 222 | 133 | 49 | 57 | 51 | 43 | | | | | 0.893 | 7.448 | Pustoleum paints (various colors) | | 90 | 54 | | | | | | | | | | 7.903 | Total inks | | | | | | | | | | | | | | List the solvents used in this operation | | | | | | | | | | | | | | (1): Mineral spirits | | 10.5 | 6.2 | | | 100 | 100 | | | | | 0.895 | 7.464 | (2): | | | | | | | | | | | | | | Clean-up solvents: | | 3.5 | 2.1 | | | 100 | 100 | | | | | 0.895 | 7.464 | Other (specify): MEK | | 42 | 25 | | | 100 | 100 | | | | | | 6.726 |
| Identify coatings and solvents (name or type of coating) | Maximum usage: | | Normal usage | Composition: Volume and weight percent as applied | | | | | | | | Density of solvent | Coating density | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | gal/hr | gal/mo | gal/mo | Solids | | Solvents (VOCs) | | | Water | | Exempt Solvent | | Lbs/Gal | Lbs/Gal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asphalt paint | | 222 | 133 | 49 | 57 | 51 | 43 | | | | | 0.893 | 7.448 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pustoleum paints (various colors) | | 90 | 54 | | | | | | | | | | 7.903 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total inks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| List the solvents used in this operation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1): Mineral spirits | | 10.5 | 6.2 | | | 100 | 100 | | | | | 0.895 | 7.464 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clean-up solvents: | | 3.5 | 2.1 | | | 100 | 100 | | | | | 0.895 | 7.464 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other (specify): MEK | | 42 | 25 | | | 100 | 100 | | | | | | 6.726 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Location of this operation in UTM coordinates: | North 3877.376 km | | East Zone 16 - 653.395 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Page Number 4-2 | Revision Number | | Date of Revision | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MMPS008670

Major Source Operating Permit Application Painting & Coating Operations

Form 0-09

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | 2 | Equipment identification #: | EV036 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-------------------------------------|--------------|---|--|-----------------|---------------------------------------|--|----------------|------|----------------|---|-----------------|--|--|--|--|--|--|--------------------|-----------------|--|--|--------|--|-----------------|--|-------|--|----------------|--|--------|--------|--------|------|-----|------|-----|------|-----|------|-----|---------|---------|---------------|--|----|----|----|----|----|----|--|--|--|--|-------|-------|-----------------------------------|--|---|---|--|--|--|--|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------|--|-----|-----|--|--|-----|-----|--|--|--|--|-------|-------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------------|--|-----|-----|--|--|-----|-----|--|--|--|--|-------|-------|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 3 | Process Description | Special coating (Valve Plant) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Year of construction or last modification | 1990 | | 5 | Stack ID (or flow diagram point identification) | SV24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 7 | Normal operating schedule | 4 | Hours/Day | 5 | Days/Week | 48 | Days/Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Oven curing (complete if applicable) | Number of ovens | 0 | Specify oven fuels: | Temperature of coated material as it leaves the oven (degrees F) | | Total maximum heat input to each oven | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Application technique and transfer efficiency (%): | Airless spray painting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | <p>Complete the following table - attach additional tables as needed - fill in only the items necessary for determination of compliance with emission standard(s).</p> <table border="1"> <thead> <tr> <th rowspan="3">Identify coatings and solvents (name or type of coating)</th> <th colspan="2">Maximum usage:</th> <th rowspan="2">Normal usage</th> <th colspan="8">Composition: Volume and weight percent as applied</th> <th rowspan="2">Density of solvent</th> <th rowspan="2">Coating density</th> </tr> <tr> <th colspan="2"></th> <th colspan="2">Solids</th> <th colspan="2">Solvents (VOCs)</th> <th colspan="2">Water</th> <th colspan="2">Exempt Solvent</th> </tr> <tr> <th>gal/hr</th> <th>gal/mo</th> <th>gal/mo</th> <th>Vol%</th> <th>Wt%</th> <th>Vol%</th> <th>Wt%</th> <th>Vol%</th> <th>Wt%</th> <th>Vol%</th> <th>Wt%</th> <th>Lbs/Gal</th> <th>Lbs/Gal</th> </tr> </thead> <tbody> <tr> <td>Asphalt paint</td> <td></td> <td>22</td> <td>13</td> <td>49</td> <td>57</td> <td>51</td> <td>43</td> <td></td> <td></td> <td></td> <td></td> <td>0.893</td> <td>7.448</td> </tr> <tr> <td>Pustoleum paints (various colors)</td> <td></td> <td>9</td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total inks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="14">List the solvents used in this operation</td> </tr> <tr> <td>(1): Mineral spirits</td> <td></td> <td>1.1</td> <td>0.6</td> <td></td> <td></td> <td>100</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td>0.895</td> <td>7.464</td> </tr> <tr> <td>(2):</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Clean-up solvents:</td> <td></td> <td>0.4</td> <td>0.3</td> <td></td> <td></td> <td>100</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td>0.895</td> <td>7.464</td> </tr> <tr> <td>Other (specify):</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | Identify coatings and solvents (name or type of coating) | Maximum usage: | | Normal usage | Composition: Volume and weight percent as applied | | | | | | | | Density of solvent | Coating density | | | Solids | | Solvents (VOCs) | | Water | | Exempt Solvent | | gal/hr | gal/mo | gal/mo | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Lbs/Gal | Lbs/Gal | Asphalt paint | | 22 | 13 | 49 | 57 | 51 | 43 | | | | | 0.893 | 7.448 | Pustoleum paints (various colors) | | 9 | 5 | | | | | | | | | | | Total inks | | | | | | | | | | | | | | List the solvents used in this operation | | | | | | | | | | | | | | (1): Mineral spirits | | 1.1 | 0.6 | | | 100 | 100 | | | | | 0.895 | 7.464 | (2): | | | | | | | | | | | | | | Clean-up solvents: | | 0.4 | 0.3 | | | 100 | 100 | | | | | 0.895 | 7.464 | Other (specify): | | | | | | | | | | | | | |
| Identify coatings and solvents (name or type of coating) | Maximum usage: | | Normal usage | Composition: Volume and weight percent as applied | | | | | | | | Density of solvent | Coating density | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Solids | | Solvents (VOCs) | | | Water | | Exempt Solvent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | gal/hr | gal/mo | gal/mo | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Vol% | Wt% | Lbs/Gal | Lbs/Gal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asphalt paint | | 22 | 13 | 49 | 57 | 51 | 43 | | | | | 0.893 | 7.448 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pustoleum paints (various colors) | | 9 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total inks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| List the solvents used in this operation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1): Mineral spirits | | 1.1 | 0.6 | | | 100 | 100 | | | | | 0.895 | 7.464 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clean-up solvents: | | 0.4 | 0.3 | | | 100 | 100 | | | | | 0.895 | 7.464 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other (specify): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Location of this operation in UTM coordinates: | North 3877.376 km | | East Zone 16 - 653.395 km | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | Page Number 4-3 | Revision Number | | Date of Revision | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008671

Form 70-10

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | | | | | | | | | | | | | | | |
|------------------|--|---|---------------------------------|--|--------------|-------------------------------------|---------------------------------|---------------------------------|-------|--|-------------------|--------------------|------------------|--|------------------|------------------|--|--|--|--|
| 2 | Equipment identification #: | EV001 - EV002 Melting Furnaces #1 & #2 | | | | | | | | | | | | | | | | | | |
| 3 | Stack ID (or flow diagram point identification) | SV01 | | | | | | | | | | | | | | | | | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | | | | | | | | | | | | | | | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year | | | | | | | | | | | | | | | | |
| 6 | Year of construction or last modification | | | | | | | | | | | | | | | | | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Brass ingots and scrap are placed into one of the electric furnaces and melted. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous | | | | | | | | | | | | | | | | |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS <table border="1"> <thead> <tr> <th>Material</th> <th>Storage/material handling process</th> <th>Average usage (units)</th> <th>Maximum usage (units)</th> </tr> </thead> <tbody> <tr> <td>Brass</td> <td></td> <td>0.30 tph; 720 tpy</td> <td>0.50 tph; 2000 tpy</td> </tr> <tr> <td>Flux & additives</td> <td></td> <td>0.01 tph; 14 tpy</td> <td>0.01 tph; 40 tpy</td> </tr> </tbody> </table> | | | | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) | Brass | | 0.30 tph; 720 tpy | 0.50 tph; 2000 tpy | Flux & additives | | 0.01 tph; 14 tpy | 0.01 tph; 40 tpy | | | | |
| Material | Storage/material handling process | Average usage (units) | Maximum usage (units) | | | | | | | | | | | | | | | | | |
| Brass | | 0.30 tph; 720 tpy | 0.50 tph; 2000 tpy | | | | | | | | | | | | | | | | | |
| Flux & additives | | 0.01 tph; 14 tpy | 0.01 tph; 40 tpy | | | | | | | | | | | | | | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS <table border="1"> <thead> <tr> <th>Material</th> <th>Storage/material handling process</th> <th>Average amount produced (units)</th> <th>Maximum amount produced (units)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> | | | | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) | | | | | | | | | | | | |
| Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 10 | PROCESS FUEL USAGE <table border="1"> <thead> <tr> <th>Type of fuel</th> <th>Maximum heat input (million BTU/HR)</th> <th>Average usage (units)</th> <th>Maximum usage (units)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> | | | | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) | | | | | | | | | | | | |
| Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | | | | | | | | | | | | | | | | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | | | | | | | | | | | | | | | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V001 Brass Melting - EV001 Melting Furnaces | | | | | | | | | | | | | | | | | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | | | | | | | | | | | | | | | | | |
| 15 | Page Number V-1 | Revision Number | Date of Revision | | | | | | | | | | | | | | | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008673

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV003 Hot Metal Transfer | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Molten brass is poured from the furnace into the pouring ladle and then into the flask. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Brass | | 0.30 tpy; 720 tpy | 0.50 tpy; 2000 tpy |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V001 Brass Melting - EV03 Hot Metal Transfer | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-2 | Revision Number | Date of Revision | |

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV004 Ladle Preheat | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 12 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | A natural gas torch is used to preheat the pouring ladles. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | | 1.621 MMcf/yr | 2.252 MMcf/yr |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V001 Brass Melting - EV04 Ladle Preheat | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number V-3 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008675

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV005 Shell Mold Pouring | | |
| 3 | Stack ID (or flow diagram point identification) | SV03/04 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Shell molds are filled with molten brass. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Brass | | 0.06 tph; 144 tpy | 0.10 tph; 400 tpy |
| | Shell molds | | 0.02 tph; 48 tpy | 0.03 tph; 133 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V002 Pouring/Cooling/Shakeout - EV005 Shellsand Mold Pouring | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number V-4 | Revision Number | Date of Revision | |

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV006 Greensand Mold Pouring | | |
| 3 | Stack ID (or flow diagram point identification) | SV04 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Molten brass is poured into the greensand molds. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Brass | | 0.24 tph; 576 tpy | 0.40 tph; 1600 tpy |
| | Greensand molds | | 1.68 tph; 4032 tpy | 2.80 tph; 11,200 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V002 Pouring/Cooling/Shakeout - EV006 Greensand Mold Pouring | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-5 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008677

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV007 Greensand Shakeout | | |
| 3 | Stack ID (or flow diagram point identification) | SV05 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Molten brass is poured into greensand molds. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Brass | | 1.92 tph; 4608 tpy | 3.20 tph; 12,800 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V002 Pouring/Cooling/Shakeout - EV007 Greensand Shakeout | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number | Revision Number | Date of Revision | |
| | V-6 | | | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008678

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV008/09 Tumble Blasts | | |
| 3 | Stack ID (or flow diagram point identification) | SV06 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Brass parts are placed into a tumble blast for cleaning. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Brass | | 0.30 tph; 720 tpy | 0.50 tph; 720 tpy |
| | Steel shot | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V003 Cleaning & Grinding - EV008/09 Tumble Blasts | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-1 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008679

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|--|---------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV010 - 012 Cut-Off & Grinding | | |
| 3 | Stack ID (or flow diagram point identification) | SV07 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous | |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Brass | | 0.375 tph; 720 tpy | 0.50 tph; 2000 tpy |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V003 Brass Cleaning & Grinding - EV010 Cut-Off & Grinding | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-8 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008680

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV013 Greensand Mullor | | |
| 3 | Stack ID (or flow diagram point identification) | SV08/09 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Greensand and additives are mixed in the mullor. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Recycled sand | | 1.69 tph; 4059 tpy | 1.69 tph; 6766 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V004 Greensand Mold Making - EV013 Greensand Mullor | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number | Revision Number | Date of Revision | |
| | 7-9 | | | |

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV014 Mold Forming | | |
| 3 | Stack ID (or flow diagram point identification) | SV09 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Greensand is put into the flask and is compacted. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Greensand | | 1.69 tph; 4059 tpy | 1.69 tph; 6766 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V004 Greensand Mold Making - EV014 Mold Forming | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-10 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008682

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV015 Shell Sand Handling | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Pre-coated sand is used to make shell molds. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Pre-coated sand | | 0.06 tph; 144 tpy | 0.10 tph; 400 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V005 Shell Mold Making - EV015 Shell Sand Handling | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number Y-11 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008683

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV016 Shell Mold Curing | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 2 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Shell sand is heated to make molds. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Pre-coated sand | | 0.06 tph; 144 tpy | 0.10 tph; 400 tpy |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | | 1.038 MMcf/yr | 5.408 MMcf/yr |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V005 Shell Mold Making - EV016 Shell Mold Curing | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number V-12 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008684

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|---|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV017 Cooling & Pasting Station | | |
| 3 | Stack ID (or flow diagram point identification) | SV10 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 2 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Shell mold halves are pasted together and cooled. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | | |
| 8 | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Shell paste | | 0.00 tph; 0.23 tpy | 0.00 tph; 1.17 tpy |
| | | | | |
| LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | | |
| 9 | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| PROCESS FUEL USAGE | | | | |
| 10 | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V005 Shell Mold Making - EV017 Cooling & Pasting Station | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number | Revision Number | Date of Revision | |
| | V-13 | | | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008685

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|---|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV018/019 Shell Core Machines | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 | Hours/Day | 3 |
| | | | Days/Week | 48 |
| | | | Days/Year | |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Pre-coated sand is heated to make shell cores | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | | |
| 8 | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Pre-coated sand | | 0.012 tph; 14.2 tpy | 0.012 tph; 49.3tpy |
| LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | | |
| 9 | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| PROCESS FUEL USAGE | | | | |
| 10 | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | | 0.259 MMcf/yr | 2.696 MMcf/yr |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V006 Cores Making - EV018 Shell Core Sand Handling & EV019 Shell Core Sand Curing | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number | Revision Number | Date of Revision | |
| | 7-14 | | | |

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV020 Airset Core Sand Mixer | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 3 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Sand and liquid binders are mixed together to make cores. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Sand | | 0.09 tph; 105 tpy | 0.09 tph; 365 tpy |
| | Binders | | 0.00 tph; 0.19 tpy | 0.00 tph; 0.64 tpy |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V006 Cores Making - EV020 Airset Core Sand Mixer | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number V-15 | Revision Number | Date of Revision | |

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|---|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV021 Airset Core Forming | | |
| 3 | Stack ID (or flow diagram point identification) | SV02 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 3 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Coated sand is put into a core box to make a core. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | | |
| 8 | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Sand & binder | | 0.09 tph; 105 tpy | 0.09 tph; 366 tpy |
| LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | | |
| 9 | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| PROCESS FUEL USAGE | | | | |
| 10 | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| 11 List any solvents, cleaners, etc., associated with this process: N/A | | | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V006 Cores Making - EV021 Airset Core Forming | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number 7-16 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008688

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV022 Small Valve Paint Booth | | |
| 3 | Stack ID (or flow diagram point identification) | SV11 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | After assembly, valves are coated with asphalt paint. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Asphalt paint | | 900 gal/yr | 1500 gal/yr |
| | Make-up/cleaning solvent | | 50 gal/yr | 83 gal/yr |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V007 Small Valve Production - EV022 Small Valve Paint Booth | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number | Revision Number | Date of Revision | |
| | V-17 | | | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008689

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV023 Large Valve Coating | | |
| 3 | Stack ID (or flow diagram point identification) | SV12 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | After assembly, large valves are coated with asphalt paint. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Asphalt paint | | 150 gal/yr | 250 gal/yr |
| | Make-up/cleaning solvent | | 10 gal/yr | 17 gal/yr |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V008 Large Valve Production - EV023 Large Valve Coating | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number | Revision Number | Date of Revision | |
| | 7-18 | | | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008690

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV024 Hydrant Coating | | |
| 3 | Stack ID (or flow diagram point identification) | SV13 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | After assembly, hydrants are coated with asphalt paint and colored paints. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Asphalt paint | | 1600 gal/yr | 2667 gal/yr |
| | Make-up/cleaning solvent | | 700 gal/yr | 1167 gal/yr |
| | Colored paints | | 648 gal/yr | 1080 gal/yr |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V009 Hydrant Production - EV024 Hydrant Paint Booth | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-19 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008691

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV025 Pangborn Rotoblast Cleaner | | |
| 3 | Stack ID (or flow diagram point identification) | SV14 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | 1988 | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | RS valves are blasted with steel grit and then with a slag abrasive. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Steel grit | | 2696 tpy | 4199 tpy |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V010 RS Valve Production - EV025 Pangborn Rotoblast Cleaner | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-20 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008692

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV026 Pangborn Airblast Cleaner | | |
| 3 | Stack ID (or flow diagram point identification) | SV15 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 10 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | RS valves are blasted with a slag abrasive. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Slag abrasive | | 2568 tpy | 4000 tpy |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V010 RS Valve Production - EV026 Pangborn Airblast Cleaner | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-21 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008693

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|-------------------------------------|--|---------------------------------|
| 1 | Facility name | | U.S. Pipe and Foundry Company, Inc. | |
| 2 | Equipment identification #: | | EV027 GLA Conveyorized Oven | |
| 3 | Stack ID (or flow diagram point identification) | | SV16 | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | 1988 | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | | RS valve parts are pre-heated in an oven prior to epoxy coating. <input type="checkbox"/> Batch <input checked="" type="checkbox"/> Continuous | |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | 1.96 | 3.764 MMcf/yr | 7.842 MMcf/yr |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | | N/A | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | | See Emission Source Fact Sheet for V010 RS Valve Production - EV027 GLA Conveyorized Oven | |
| 14 | Location of this equipment in UTM coordinates: | | North 3877.376 km | East Zone 16 - 653.395 km |
| 15 | Page Number V-22 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008694

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV028 Porbeck Oven | | |
| 3 | Stack ID (or flow diagram point identification) | SV17 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | 1986 | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | RS valves are pre-heated prior to being coated with epoxy coating. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | 1.87 | 3.584 MMcf/yr | 7.467 MMcf/yr |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V010 RS Valve Production - EV028 Porbeck Oven | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-23 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008695

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|---|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV031/032 Lead/Babbitt Melting | | |
| 3 | Stack ID (or flow diagram point identification) | SV20 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 3 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Lead/babbitt is melted for use in hydrant and large valve production. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | | |
| 8 | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Lead/babbitt | | 0.01 tph; 6 tpy | 0.01 tph; 20 tpy |
| | | | | |
| LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | | |
| 9 | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| PROCESS FUEL USAGE | | | | |
| 10 | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V011 Ancillary Processes - EV031 Lead Kettle Melting | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-24 | Revision Number | Date of Revision | |

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MWPS008696

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV033 RS Valve Burn-Off Oven | | |
| 3 | Stack ID (or flow diagram point identification) | SV21 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 8 Hours/Day | 1 Days/Week | 40 Days/Year |
| 6 | Year of construction or last modification | 1995 | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Parts with faulty coatings are placed in in oven where the coating is incinerated. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | 0.575 | 0.184 MMcf/yr | 2.30 MMcf/yr |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V011 Ancillary Processes - EV033 RS Valve Burn-Off Oven | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number V-25 | Revision Number | Date of Revision | |

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MWPS008697

Major Source Operating Permit Application
Miscellaneous Processes

Form 70-10

| | | | | |
|----|--|---|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV034/035 Bathhouse Water Heaters | | |
| 3 | Stack ID (or flow diagram point identification) | SV22/23 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 6 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Water is heated for use in the bathhouse. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | Natural gas | 0.38 | 0.547 MMcf/yr | 3.329 MMcf/yr |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V011 V&H Ancillary Processes - EV034/035 Water Heaters | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East Zone 16 - 653.395 km | |
| 15 | Page Number Y-26 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008698

**Major Source Operating Permit Application
Miscellaneous Processes**

Form 70-10

| | | | | |
|----|--|--|---------------------------------|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Equipment identification #: | EV036 Miscellaneous Coatings | | |
| 3 | Stack ID (or flow diagram point identification) | SV24 | | |
| 4 | IF THE EMISSIONS ARE CONTROLLED FOR COMPLIANCE, ATTACH THE APPROPRIATE AIR POLLUTION CONTROL SYSTEM FORM. | | | |
| 5 | Normal operating schedule | 4 Hours/Day | 5 Days/Week | 48 Days/Year |
| 6 | Year of construction or last modification | | | |
| 7 | Describe this process (attach a flow diagram for the process) and check one of the following | Various coatings are applied to V&H parts. | | <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Continuous |
| 8 | DESCRIBE THE TYPES AND AMOUNTS OF RAW MATERIALS INPUT TO THIS PROCESS | | | |
| | Material | Storage/material handling process | Average usage (units) | Maximum usage (units) |
| | Asphalt paint | | 160 gal/yr | 267 gal/yr |
| | Make-up/cleaning solvent | | 70 gal/yr | 117 gal/yr |
| | Colored paints | | 65 gal/yr | 108 gal/yr |
| 9 | LIST THE TYPES AND AMOUNTS OF PRIMARY PRODUCTS PRODUCED BY THIS PROCESS | | | |
| | Material | Storage/material handling process | Average amount produced (units) | Maximum amount produced (units) |
| | | | | |
| | | | | |
| 10 | PROCESS FUEL USAGE | | | |
| | Type of fuel | Maximum heat input (million BTU/HR) | Average usage (units) | Maximum usage (units) |
| | | | | |
| | | | | |
| | | | | |
| 11 | List any solvents, cleaners, etc., associated with this process: | N/A | | |
| 12 | IF THE EMISSIONS AND/OR OPERATIONS OF THIS PROCESS ARE MONITORED FOR COMPLIANCE, PLEASE ATTACH THE APPROPRIATE COMPLIANCE DEMONSTRATION FORM. | | | |
| 13 | Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, open air sand blasting, material handling operations, etc. (Attach a separate sheet if necessary) | See Emission Source Fact Sheet for V009 Hydrant Production - EV024 Hydrant Paint Booth | | |
| 14 | Location of this equipment in UTM coordinates: | North 3877.376 km | East | Zone 16 - 653.395 km |
| 15 | Page Number V-27 | Revision Number | Date of Revision | |

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Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008699

Form 70-11

Major Source Operating Permit Application
Control Equipment - Miscellaneous - General Control Equipment (GCE)

Form 70-11

| | | | | | |
|----|--|--|----------------|-----------------|------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company | | | |
| 2 | Equipment name and identification #: | CDV06 Small Valve Painting Dry Filter (12C) | | | |
| 3 | GCE name | | | | |
| 4 | Name of manufacturer | Generic | | | |
| 5 | Model number | | | | |
| 6 | Cost of GCE | | | | |
| 7 | Date of manufacture | | | | |
| 8 | Date of installation | 1992 | | | |
| 9 | Does GCE contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type (File applicable form for control equipment) <input checked="" type="checkbox"/> No | | | |
| 10 | Volume of gas discharged from GCE at dry standard conditions | 15,000 dscfm | | | |
| 11 | Indicate which of the following are components of this GCE | <input type="checkbox"/> Flow rate instrumentation <input checked="" type="checkbox"/> Differential Pressure Instrumentation <input type="checkbox"/> Dew point indicator <input type="checkbox"/> Other: <input type="checkbox"/> Inlet gas temperature indicator | | | |
| 12 | Operation of GCE | <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Periodically | | | |
| 13 | GCE inlet (dirty gas) | <input type="checkbox"/> Bottom feed <input type="checkbox"/> Top feed <input checked="" type="checkbox"/> Other | | | |
| 14 | Shape of GCE (Describe) | | | | |
| | Size of GCE | Volume cubic ft | Height feet | Length feet | Width feet |
| 15 | Describe cleaning method | Airborne paint over-spray is pulled through the filter elements. | | | |
| 16 | Describe how emissions are collected | Multiple-layer expanded-paper filters are used to collect the paint over-spray. | | | |
| 17 | Give total size of collection surface in square feet (if applicable) | 48 | | | |
| | Give dimensions of collection surface (if applicable) | Height 6 feet | Length feet | Width 8 feet | Diameter feet |
| | Collection surface material(s) | Expanded paper | | | |

MWPS008701

| | | | | | | | |
|------------------------------------|--|--------------------------------|---|--------------------|------------------|------------------|-----------------------|
| 18 | Particle size distribution in microns (μ) | | | | | | |
| | Particle type(s) | | | | | | |
| | Particle size | | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| | Give percentage by weight | | | | | | |
| | Temperature of inlet gas (degrees F) | | | | | | |
| | Moisture content (percentage) | | | | | | |
| | Dust concentration (lbs/cubic foot) | | | | | | |
| | Inlet velocity (feet/second) | | | | | | |
| Average particulate size (microns) | | | | | | | |
| | | | | | | | |
| 19 | Dust disposal method | | <input type="checkbox"/> Automatic <input checked="" type="checkbox"/> Manual | | | | |
| | Describe | | Filter elements are placed in dumpster. | | | | |
| | How often is the GCE cleaned? | | every _____ hours | | | | |
| | Site of disposal | | Sanitary landfill | | | | |
| | | | | | | | |
| 20 | Particulate Control Efficiency | | | | | | |
| | Manufacturer's stated efficiency (percent) | | | | | | |
| | Required efficiency (percent) | | | | | | |
| | Operating efficiency (performance testing) (percent) | | | | | | |
| | Efficiency for particle size | | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| Give percentage by weight | | | | | | | |
| | | | | | | | |
| 21 | Location of the fan | | <input checked="" type="checkbox"/> Clean Air Side (pull through) <input type="checkbox"/> Dirty Air Side (push through) | | | | |
| | Type fan (check one) | | <input type="checkbox"/> Centrifugal (radial-flow) <input checked="" type="checkbox"/> Axial-Flow <input type="checkbox"/> Compressor | | | | |
| | Type blade (check one) | | <input type="checkbox"/> Forward curve <input type="checkbox"/> Backward curve <input type="checkbox"/> Straight <input type="checkbox"/> Propeller <input type="checkbox"/> Tube-axial <input type="checkbox"/> Vane-axial | | | | |
| | | | | | | | |
| 22 | Fan Data | | | | | | |
| | Diameter | inches | | Braking horsepower | | BHP | |
| | Speed | RPM | | Inlet area | | Ft ² | |
| | Volume | cfm @ STP | | Outlet Area | | Ft ² | |
| | Static pressure | inches WC | | Motor horsepower | | HP | |
| | For compressor: | Positive displacement (yes/no) | | | | Dynamic (yes/no) | |
| | | Reciprocating (yes/no) | | | | | |
| | | | | | | | |
| 23 | Drawings of all equipment should be submitted with each application. | | | | | | |
| | | | | | | | |
| 24 | Page Number V-1 | Revision Number | | | Date of Revision | | |

Major Source Operating Permit Application
Control Equipment - Miscellaneous - General Control Equipment (GCE)

Form 70-11

| | | | | | |
|----|--|--|--------|---------|----------|
| 1 | Facility name | U.S. Pipe and Foundry Company | | | |
| 2 | Equipment name and identification #: | CDV07 Hydrant Painting Dry Filter (13C) | | | |
| 3 | GCE name | | | | |
| 4 | Name of manufacturer | Generic | | | |
| 5 | Model number | | | | |
| 6 | Cost of GCE | | | | |
| 7 | Date of manufacture | | | | |
| 8 | Date of installation | 1990 | | | |
| 9 | Does GCE contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type (File applicable form for control equipment) <input checked="" type="checkbox"/> No | | | |
| 10 | Volume of gas discharged from GCE at dry standard conditions | 15,000 dscfm | | | |
| 11 | Indicate which of the following are components of this CGE | <input type="checkbox"/> Flow rate instrumentation <input checked="" type="checkbox"/> Differential Pressure Instrumentation <input type="checkbox"/> Dew point indicator <input type="checkbox"/> Other: <input type="checkbox"/> Inlet gas temperature indicator | | | |
| 12 | Operation of GCE | <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Periodically | | | |
| 13 | GCE inlet (dirty gas) | <input type="checkbox"/> Bottom feed <input type="checkbox"/> Top feed <input checked="" type="checkbox"/> Other | | | |
| 14 | Shape of GCE (Describe) | | | | |
| | Size of GCE | Volume | Height | Length | Width |
| | | cubic ft | feet | feet | feet |
| 15 | Describe cleaning method | Airborne paint over-spray is pulled through the filter elements. | | | |
| 16 | Describe how emissions are collected | Multiple-layer expanded-paper filters are used to collect the paint over-spray. | | | |
| 17 | Give total size of collection surface in square feet (if applicable) | 100 | | | |
| | Give dimensions of collection surface (if applicable) | Height | Length | Width | Diameter |
| | | 10 feet | feet | 10 feet | feet |
| | Collection surface material(s) | Expanded paper | | | |

MWPS008703

| | | | | | | | |
|------------------------------------|--|--------------------------------|---|------------------|---------------|-----------------------|--|
| 18 | Particle size distribution in microns (μ) | | | | | | |
| | Particle type(s) | | | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ | |
| | Give percentage by weight | | | | | | |
| | Temperature of inlet gas (degrees F) | | | | | | |
| | Moisture content (percentage) | | | | | | |
| | Dust concentration (lbs/cubic foot) | | | | | | |
| | Inlet velocity (feet/second) | | | | | | |
| Average particulate size (microns) | | | | | | | |
| | | | | | | | |
| 19 | Dust disposal method | | <input type="checkbox"/> Automatic <input type="checkbox"/> Manual | | | | |
| | Describe | | | | | | |
| | How often is the GCE cleaned? | | every _____ hours | | | | |
| | Site of disposal | | | | | | |
| | | | | | | | |
| 20 | Particulate Control Efficiency | | | | | | |
| | Manufacturer's stated efficiency (percent) | | | | | | |
| | Required efficiency (percent) | | | | | | |
| | Operating efficiency (performance testing) (percent) | | | | | | |
| | Efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ | |
| Give percentage by weight | | | | | | | |
| | | | | | | | |
| 21 | Location of the fan | | <input type="checkbox"/> Clean Air Side (pull through) <input type="checkbox"/> Dirty Air Side (push through) | | | | |
| | Type fan (check one) | | <input type="checkbox"/> Centrifugal (radial-flow) <input type="checkbox"/> Axial-Flow <input type="checkbox"/> Compressor | | | | |
| | Type blade (check one) | | <input type="checkbox"/> Forward curve <input type="checkbox"/> Backward curve <input type="checkbox"/> Straight <input type="checkbox"/> Propeller <input type="checkbox"/> Tube-axial <input type="checkbox"/> Vane-axial | | | | |
| | | | | | | | |
| 22 | Fan Data | | | | | | |
| | Diameter | inches | Braking horsepower | BHP | | | |
| | Speed | RPM | Inlet area | Ft ² | | | |
| | Volume | cfm @ STP | Outlet Area | Ft ² | | | |
| | Static pressure | inches WC | Motor horsepower | HP | | | |
| | For compressor: | Positive displacement (yes/no) | | Dynamic (yes/no) | | | |
| | | Reciprocating (yes/no) | | | | | |
| | | | | | | | |
| 23 | Drawings of all equipment should be submitted with each application. | | | | | | |
| | | | | | | | |
| 24 | Page Number v-2 | Revision Number | | Date of Revision | | | |

Major Source Operating Permit Application
Control Equipment - Miscellaneous - General Control Equipment (GCE)

Form 70-11

| | | | | | |
|----|--|--|--------|--------|----------|
| 1 | Facility name | U.S. Pipe and Foundry Company | | | |
| 2 | Equipment name and identification #: | CDV12 Miscellaneous Coatings Dry Filter | | | |
| 3 | GCE name | | | | |
| 4 | Name of manufacturer | Generic | | | |
| 5 | Model number | | | | |
| 6 | Cost of GCE | | | | |
| 7 | Date of manufacture | | | | |
| 8 | Date of installation | 1992 | | | |
| 9 | Does GCE contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type (File applicable form for control equipment) <input checked="" type="checkbox"/> No | | | |
| 10 | Volume of gas discharged from GCE at dry standard conditions | 15,000 dscfm | | | |
| 11 | Indicate which of the following are components of this GCE | <input type="checkbox"/> Flow rate instrumentation <input type="checkbox"/> Dew point indicator <input type="checkbox"/> Inlet gas temperature indicator <input checked="" type="checkbox"/> Differential Pressure Instrumentation <input type="checkbox"/> Other: | | | |
| 12 | Operation of GCE | <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Periodically | | | |
| 13 | GCE inlet (dirty gas) | <input type="checkbox"/> Bottom feed <input type="checkbox"/> Top feed <input checked="" type="checkbox"/> Other | | | |
| 14 | Shape of GCE (Describe) | | | | |
| | Size of GCE | Volume | Height | Length | Width |
| | | cubic ft | feet | feet | feet |
| 15 | Describe cleaning method | Airborne paint over-spray is pulled through the filter elements. | | | |
| 16 | Describe how emissions are collected | Multiple-layer expanded-paper filters are used to collect the paint over-spray. | | | |
| 17 | Give total size of collection surface in square feet (if applicable) | 48 | | | |
| | Give dimensions of collection surface (if applicable) | Height | Length | Width | Diameter |
| | | 6 feet | feet | 8 feet | feet |
| | Collection surface material(s) | Expanded paper | | | |

MWPS008705

| | | | | | | | |
|------------------------------------|--|-----------------|---|------------------|------------------|-----------------------|--|
| 18 | Particle size distribution in microns (μ) | | | | | | |
| | Particle type(s) | | | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ | |
| | Give percentage by weight | | | | | | |
| | Temperature of inlet gas (degrees F) | | | | | | |
| | Moisture content (percentage) | | | | | | |
| | Dust concentration (lbs/cubic foot) | | | | | | |
| | Inlet velocity (feet/second) | | | | | | |
| Average particulate size (microns) | | | | | | | |
| 19 | Dust disposal method | | <input type="checkbox"/> Automatic <input checked="" type="checkbox"/> Manual | | | | |
| | Describe | | Filter elements are placed in dumpster. | | | | |
| | How often is the GCE cleaned? | | every _____ hours | | | | |
| | Site of disposal | | Sanitary landfill | | | | |
| 20 | Particulate Control Efficiency | | | | | | |
| | Manufacturer's stated efficiency (percent) | | | | | | |
| | Required efficiency (percent) | | | | | | |
| | Operating efficiency (performance testing) (percent) | | | | | | |
| | Efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ | |
| Give percentage by weight | | | | | | | |
| 21 | Location of the fan | | <input checked="" type="checkbox"/> Clean Air Side (pull through) <input type="checkbox"/> Dirty Air Side (push through) | | | | |
| | Type fan (check one) | | <input type="checkbox"/> Centrifugal (radial-flow) <input checked="" type="checkbox"/> Axial-Flow <input type="checkbox"/> Compressor | | | | |
| | Type blade (check one) | | <input type="checkbox"/> Forward curve <input type="checkbox"/> Backward curve <input type="checkbox"/> Straight <input type="checkbox"/> Propeller <input type="checkbox"/> Tube-axial <input type="checkbox"/> Vane-axial | | | | |
| 22 | Fan Data | | | | | | |
| | Diameter | inches | Braking horsepower | | BHP | | |
| | Speed | RPM | Inlet area | | Ft ² | | |
| | Volume | cfm @ STP | Outlet Area | | Ft ² | | |
| | Static pressure | inches WC | Motor horsepower | | HP | | |
| | For compressor: | | Positive displacement (yes/no) | | Dynamic (yes/no) | | |
| | | | Reciprocating (yes/no) | | | | |
| 23 | Drawings of all equipment should be submitted with each application. | | | | | | |
| 24 | Page Number | Revision Number | | Date of Revision | | | |
| | 4-3 | | | | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008706

Form 70-18

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | |
|----|--|---|---------------------------------------|--------------|---------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Equipment name and identification #: | CDV001 Brass Furnace Baghouse (01C) | | | |
| 3 | Stack ID or flow diagram point identification | SV01 | | | |
| 4 | Name of manufacturer | | | | |
| 5 | Model number | | | | |
| 6 | Cost of baghouse | | | | |
| 7 | Date of installation | Pre 1972 | | | |
| | Date of manufacture | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type? (File applicable form for control equipment) <input type="checkbox"/> No | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 20,130 | dscfm | | |
| | B. Total cloth area of baghouse | 6120 | Ft ² | | |
| | Air to cloth ratio (A.) CFM divided by (B.) FT ² = | 3.3:1 | Ft/min | | |
| | Pressure drop across baghouse | | | | |
| 10 | Stated by manufacturer: | | | | inches of water |
| | Measured (actual) | | | | inches of water |
| | Calculated | | | | inches of water |
| | Type of fabric filters used in baghouse | | | | |
| 11 | Operating temperature | Manufacturer's recommended | | | °F |
| | | Normal | | | °F |
| | | Maximum | | | °F |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | |
| | | Dew point indicator | Differential pressure instrumentation | | |
| | | Heat exchanger | Evaporative cooler | | |
| | | Transmissometer | Other (describe) | | |
| | Operation of baghouse | Continuous | X | Intermittent | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | Exterior filtration |
| | | Other (describe) | | | |
| 13 | Shape of baghouse | X | Rectangular | Cubical | Cylindrical |
| | | Other (describe) | | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | |
| | Size of baghouse (volume) | FT ³ | | | |
| | Dimensions (Ft) | Height | Length | Width | |
| | Shell material | Mild steel | | | |

MWPS008708

| | | | | | |
|----|---|----------------------------------|--------------------------------|-------------------------------|-------------------------------------|
| 14 | Bag cleaning method (check one): | | | | |
| | A. Fabric flexing | X | Mechanical shaking and rapping | | Sonic cleaning |
| | | | Collapse cleaning | | Pulse (pressure) - jet cleaning |
| | B. Reverse air cleaning | | Reverse jet | Reverse flow | Manual cleaning |
| 15 | Filter configuration | | Panels | X | Circular cross-section tube |
| | | | Other (describe) | | |
| | Filter fabric | X | Felted | | Woven |
| | Filter area | FT ² | | | |
| | Number of filters per compartment | | | | |
| | Number of compartments | 1 | | | |
| 16 | Particle size distribution in microns (μ) | | | | |
| | Particle type(s) | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ greater than 44 μ |
| | Give percentage by weight | | | | |
| 17 | Dust disposal method | Automatic (screw conveyor, etc.) | | | |
| | | Manual | | | |
| | Describe dust disposal method: | From hopper to truck | | | |
| | How often are hoppers emptied? | Every | hours | | |
| | Is disposed material wetted before transport? | Yes | X | No | |
| | Site of disposal: | USP Dump | | | |
| 18 | Particulate control efficiency | | | | |
| | A. Manufacturer's stated efficiency | % | | | |
| | B. Required efficiency | % | | | |
| | C. Operation efficiency (performance testing) | % | | | |
| | D. Efficiency for particle size | % | | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ greater than 44 μ |
| | Give percentage by weight | | | | |
| 19 | Location of the fan | X | Clean air side (pull through) | Dirty air side (push through) | |
| | Type fan (check one) | X | Centrifugal (radial-flow) | Axial-flow | |
| | | | Compressor | | |
| | Type blade (check one) | | Forward curve | Backward curve | |
| | | | Straight | Propeller | |
| | | Tube-axial | Vane-axial | | |
| 20 | Fan Data | | | | |
| | Diameter: | inches | Braking Horsepower: | BHP | |
| | Speed: | RPM | Inlet area: | FT ² | |
| | Volume | cfm @ STP | Outlet area | FT ² | |
| | Static pressure: | inches WC | Motor horsepower: | HP | |

| | | | |
|----|---|---|-----------------------|
| 20 | Fan Data (continued) | | |
| | Submitted a copy of manufacturer's multirating tables | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| | For compressor | | Positive displacement |
| | | | Dynamic |
| | | Reciprocating | |
| 21 | Page Number V-1 | Revision Number | Date of Revision |

2-06-95

Chattanooga-Hamilton County Air Pollution Control Bureau

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | |
|----|--|---|---|--------------|---------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Equipment name and identification #: | CDV02 Brass Tumble Blast Baghouse (03C) | | | |
| 3 | Stack ID or flow diagram point identification | SV06 | | | |
| 4 | Name of manufacturer | Pangborn | | | |
| 5 | Model number | | | | |
| 6 | Cost of baghouse | | | | |
| 7 | Date of installation | Pre 1972 | | | |
| 8 | Date of manufacture | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes | If yes, what type? (File applicable form for control equipment) | | |
| | | <input type="checkbox"/> No | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 3220 | dscfm | | |
| | B. Total cloth area of baghouse | | ft ² | | |
| | Air to cloth ratio (A.) CFM divided by (B.) ft ² = | | ft/min | | |
| 10 | Pressure drop across baghouse | | | | |
| | Stated by manufacturer: | inches of water | | | |
| | Measured (actual) | inches of water | | | |
| | Calculated | inches of water | | | |
| 11 | Type of fabric filters used in baghouse | | | | |
| | Operating temperature | Manufacturer's recommended | N/A | °F | |
| | | Normal | Ambient | °F | |
| | | Maximum | Ambient | °F | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | |
| | | Dew point indicator | Differential pressure instrumentation | | |
| | | Heat exchanger | Evaporative cooler | | |
| | | Transmissometer | Other (describe) | | |
| | Operation of baghouse | X | Continuous | Intermittent | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | Exterior filtration |
| | | | Tangential | | |
| | | | Other (describe) | | |
| 13 | Shape of baghouse | X | Rectangular | Cubical | Cylindrical |
| | | | Other (describe) | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | |
| | Size of baghouse (volume) | ft ³ | | | |
| | Dimensions (ft) | Height | Length | Width | |
| | Shell material | Mild steel | | | |

MWPS008711

| | | | | | | |
|---|---|-------------------------------------|-------------------------------------|---------------------------------|-------------------|-----------------------|
| 14 | Bag cleaning method (check one): | | | | | |
| | A. Fabric flexing | <input checked="" type="checkbox"/> | Mechanical shaking and rapping | Sonic cleaning | | |
| | | | Collapse cleaning | Pulse (pressure) - jet cleaning | | |
| | B. Reverse air cleaning | | Reverse jet | Reverse flow | Manual cleaning | |
| 15 | Filter configuration | Panels | <input checked="" type="checkbox"/> | Circular cross-section tube | Multiple tube bag | |
| | | Other (describe) | | | | |
| | Filter fabric | <input checked="" type="checkbox"/> | Felted | Woven | | |
| | Filter area | FT ² | | | | |
| | Number of filters per compartment | | | | | |
| | Number of compartments | 1 | | | | |
| Particle size distribution in microns (μ) | | | | | | |
| 16 | Particle type(s) | | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| | Give percentage by weight | | | | | |
| 17 | Dust disposal method | Automatic (screw conveyor, etc.) | | | | |
| | | <input checked="" type="checkbox"/> | Manual | | | |
| | Describe dust disposal method: | From hopper to truck | | | | |
| | How often are hoppers emptied? | Every | hours | | | |
| | Is disposed material wetted before transport? | Yes | <input checked="" type="checkbox"/> | No | | |
| | Site of disposal: | USP Dump | | | | |
| 18 | Particulate control efficiency | | | | | |
| | A. Manufacturer's stated efficiency | 99.9 | % | | | |
| | B. Required efficiency | | % | | | |
| | C. Operation efficiency (performance testing) | | % | | | |
| | D. Efficiency for particle size | | % | | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| | Give percentage by weight | | | | | |
| 19 | Location of the fan | <input checked="" type="checkbox"/> | Clean air side (pull through) | Dirty air side (push through) | | |
| | Type fan (check one) | <input checked="" type="checkbox"/> | Centrifugal (radial-flow) | Axial-flow | | |
| | | Compressor | | | | |
| | Type blade (check one) | | Forward curve | Backward curve | | |
| | | | Straight | Propeller | | |
| | | Tube-axial | Vane-axial | | | |
| Fan Data | | | | | | |
| 20 | Diameter: | inches | Braking Horsepower: | BHP | | |
| | Speed: | RPM | Inlet area: | Ft ² | | |
| | Volume | cfm @ STP | Outlet area | Ft ² | | |
| | Static pressure: | inches WC | Motor horsepower: | HP | | |

| Fan Data (continued) | | | |
|----------------------|---|--|------------------|
| 20 | Submitted a copy of manufacturer's multirating tables | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | For compressor | Positive displacement | |
| | | Dynamic | |
| | | Reciprocating | |
| 21 | Page Number V-3 | Revision Number | Date of Revision |

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008713

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | | |
|----|---|---|---------------------------------------|--------------|---------------------|------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | |
| 2 | Equipment name and identification #: | CDV03 Cut-off Saw & Pedestal Grinders (02C) | | | | |
| 3 | Stack ID or flow diagram point identification | SV07 | | | | |
| 4 | Name of manufacturer | Pangborn | | | | |
| 5 | Model number | | | | | |
| 6 | Cost of baghouse | | | | | |
| 7 | Date of installation | Pre 1972 | | | | |
| | Date of manufacture | | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? <input type="checkbox"/> Yes If yes, what type? (File applicable form for control equipment) <input type="checkbox"/> No | | | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 4500 | dscfm | | | |
| | B. Total cloth area of baghouse | | ft ² | | | |
| | Air to cloth ratio (A.) CFM divided by (B.) FT ² = | | F/min | | | |
| 10 | Pressure drop across baghouse | | | | | |
| | Stated by manufacturer: | | inches of water | | | |
| | Measured (actual) | | inches of water | | | |
| | Calculated | | inches of water | | | |
| 11 | Type of fabric filters used in baghouse | | | | | |
| | Operating temperature | Manufacturer's recommended | N/A | °F | | |
| | | Normal | Ambient | °F | | |
| | | Maximum | Ambient | °F | | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | | |
| | | Dew point indicator | Differential pressure instrumentation | | | |
| | | Heat exchanger | Evaporative cooler | | | |
| | | Transmissometer | Other (describe) | | | |
| 13 | Operation of baghouse | X | Continuous | Intermittent | | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | Exterior filtration | Tangential |
| | | | Other (describe) | | | |
| | Shape of baghouse | X | Rectangular | Cubical | Cylindrical | |
| | | | Other (describe) | | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | | |
| | Size of baghouse (volume) | | Ft ³ | | | |
| | Dimensions (Ft) | | Height | Length | Width | |
| | Shell material | | Mild steel | | | |

MWPS008714

| | | | | | |
|----|---|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------|
| 14 | Bag cleaning method (check one): | | | | |
| | A. Fabric flexing | <input checked="" type="checkbox"/> | Mechanical shaking and rapping | <input type="checkbox"/> | Sonic cleaning |
| | | | Collapse cleaning | <input type="checkbox"/> | Pulse (pressure) - jet cleaning |
| | B. Reverse air cleaning | | Reverse jet | <input type="checkbox"/> | Reverse flow |
| | | | | | Manual cleaning |
| 15 | Filter configuration | | Panels | <input checked="" type="checkbox"/> | Circular cross-section tube |
| | | | Other (describe) | | Multiple tube bag |
| | Filter fabric | <input checked="" type="checkbox"/> | Felted | <input type="checkbox"/> | Woven |
| | Filter area | | Ft ² | | |
| | Number of filters per compartment | | | | |
| | Number of compartments | | 1 | | |
| 16 | Particle size distribution in microns (μ) | | | | |
| | Particle type(s) | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ |
| | Give percentage by weight | | | | greater than 44 μ |
| 17 | Dust disposal method | | Automatic (screw conveyor, etc.) | | |
| | | <input checked="" type="checkbox"/> | Manual | | |
| | Describe dust disposal method: | | From hopper to truck | | |
| | How often are hoppers emptied? | Every | hours | | |
| | Is disposed material wetted before transport? | Yes | <input checked="" type="checkbox"/> | No | |
| | Site of disposal: | USP Dump | | | |
| 18 | Particulate control efficiency | | | | |
| | A. Manufacturer's stated efficiency | 99.9 | | | % |
| | B. Required efficiency | | | | % |
| | C. Operation efficiency (performance testing) | | | | % |
| | D. Efficiency for particle size | | | | % |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ |
| | Give percentage by weight | | | | greater than 44 μ |
| 19 | Location of the fan | <input checked="" type="checkbox"/> | Clean air side (pull through) | <input type="checkbox"/> | Dirty air side (push through) |
| | Type fan (check one) | <input checked="" type="checkbox"/> | Centrifugal (radial-flow) | <input type="checkbox"/> | Axial-flow |
| | | | Compressor | <input type="checkbox"/> | |
| | Type blade (check one) | | Forward curve | <input type="checkbox"/> | Backward curve |
| | | | Straight | <input type="checkbox"/> | Propeller |
| | | | Tube-axial | <input type="checkbox"/> | Vane-axial |
| 20 | Fan Data | | | | |
| | Diameter: | inches | Braking Horsepower: | BHP | |
| | Speed: | RPM | Inlet area: | Ft ² | |
| | Volume | cfm @ STP | Outlet area | Ft ² | |
| | Static pressure: | inches WC | Motor horsepower: | HP | |

| Fan Data (continued) | | | |
|----------------------|---|--|------------------|
| 20 | Submitted a copy of manufacturer's multirating tables | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | For compressor | Positive displacement | |
| | | Dynamic | |
| | | Reciprocating | |
| 21 | Page Number V-3 | Revision Number | Date of Revision |

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008716

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | | |
|----------------|--|--|---------------------------------------|--------------|---------------------|------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | |
| 2 | Equipment name and identification #: | CDV04 Green Sand Preparation Baghouse (11C) | | | | |
| 3 | Stack ID or flow diagram point identification | SV08 | | | | |
| 4 | Name of manufacturer | Pangborn | | | | |
| 5 | Model number | | | | | |
| 6 | Cost of baghouse | | | | | |
| 7 | Date of installation | Pre 1972 | | | | |
| | Date of manufacture | | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type? (File applicable form for control equipment) <input checked="" type="checkbox"/> No | | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 3500 | dscfm | | | |
| | B. Total cloth area of baghouse | 1000 | Ft ² | | | |
| | Air to cloth ratio (A.) CFM divided by (B.) FT ² = | 3.5:1 | Ft/min | | | |
| 10 | Pressure drop across baghouse | | | | | |
| | Stated by manufacturer: | inches of water | | | | |
| | Measured (actual) | inches of water | | | | |
| | Calculated | inches of water | | | | |
| 11 | Type of fabric filters used in baghouse | Cotton Satin | | | | |
| | Operating temperature | Manufacturer's recommended | N/A | °F | | |
| | | Normal | Ambient | °F | | |
| | | Maximum | Ambient | °F | | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | | |
| | | Dew point indicator | Differential pressure instrumentation | | | |
| | | Heat exchanger | Evaporative cooler | | | |
| | | Transmissometer | Other (describe) | | | |
| | | | | | | |
| 13 | Operation of baghouse | X | Continuous | Intermittent | | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | Exterior filtration | Tangential |
| | | Other (describe) | | | | |
| | Shape of baghouse | X | Rectangular | Cubical | Cylindrical | |
| | | Other (describe) | | | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | | |
| | Size of baghouse (volume) | Ft ³ | | | | |
| | Dimensions (Ft) | Height | Length | Width | | |
| Shell material | Mild steel | | | | | |

MWPS008717

| | | | | | |
|---|---|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------|
| Bag cleaning method (check one): | | | | | |
| 14 | A. Fabric flexing | <input checked="" type="checkbox"/> | Mechanical shaking and rapping | <input type="checkbox"/> | Sonic cleaning |
| | | | Collapse cleaning | <input type="checkbox"/> | Pulse (pressure) - jet cleaning |
| | B. Reverse air cleaning | | Reverse jet | <input type="checkbox"/> | Reverse flow |
| | | | | <input type="checkbox"/> | Manual cleaning |
| | Filter configuration | | Panels | <input checked="" type="checkbox"/> | Circular cross-section tube |
| | | | Other (describe) | | Multiple tube bag |
| 15 | Filter fabric | <input checked="" type="checkbox"/> | Felted | <input type="checkbox"/> | Woven |
| | Filter area | | FT ² | | |
| | Number of filters per compartment | | | | |
| | Number of compartments | 1 | | | |
| Particle size distribution in microns (μ) | | | | | |
| 16 | Particle type(s) | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ |
| | Give percentage by weight | | | | greater than 44 μ |
| | Dust disposal method | <input checked="" type="checkbox"/> | Automatic (screw conveyor, etc.) | | |
| | | <input type="checkbox"/> | Manual | | |
| 17 | Describe dust disposal method: | From hopper to truck | | | |
| | How often are hoppers emptied? | Every | hours | | |
| | Is disposed material wetted before transport? | Yes | <input checked="" type="checkbox"/> | No | |
| | Site of disposal: | USP Dump | | | |
| Particulate control efficiency | | | | | |
| 18 | A. Manufacturer's stated efficiency | | | | |
| | B. Required efficiency | | | | |
| | C. Operation efficiency (performance testing) | | | | |
| | D. Efficiency for particle size | | | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ |
| | Give percentage by weight | | | | greater than 44 μ |
| | Location of the fan | <input checked="" type="checkbox"/> | Clean air side (pull through) | <input type="checkbox"/> | Dirty air side (push through) |
| | Type fan (check one) | <input checked="" type="checkbox"/> | Centrifugal (radial-flow) | <input type="checkbox"/> | Axial-flow |
| 19 | | | Compressor | | |
| | Type blade (check one) | | Forward curve | <input type="checkbox"/> | Backward curve |
| | | | Straight | <input type="checkbox"/> | Propeller |
| | | | Tube-axial | <input type="checkbox"/> | Vane-axial |
| Fan Data | | | | | |
| 20 | Diameter: | inches | Braking Horsepower: | BHP | |
| | Speed: | RPM | Inlet area: | Ft ² | |
| | Volume | cfm @ STP | Outlet area | Ft ² | |
| | Static pressure: | inches WC | Motor horsepower: | HP | |

| | | | |
|---------------|---|--|------------------|
| 20 | Fan Data (continued) | | |
| | Submitted a copy of manufacturer's multirating tables | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | For compressor | Positive displacement | |
| | | Dynamic | |
| Reciprocating | | | |
| 21 | Page Number V-4 | Revision Number | Date of Revision |

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | |
|----|--|--|---------------------------------------|--------------|---------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Equipment name and identification #: | CDV05 Shell Molding Baghouse (05C) | | | |
| 3 | Stack ID or flow diagram point identification | SV10 | | | |
| 4 | Name of manufacturer | | | | |
| 5 | Model number | | | | |
| 6 | Cost of baghouse | | | | |
| 7 | Date of installation | Pre 1972 | | | |
| | Date of manufacture | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type? (File applicable form for control equipment) <input checked="" type="checkbox"/> No | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 15,000 | dscfm | | |
| | B. Total cloth area of baghouse | | Ft ² | | |
| | Air to cloth ratio (A.) CFM divided by (B.) Ft ² = | | Ft/min | | |
| 10 | Pressure drop across baghouse | | | | |
| | Stated by manufacturer: | | | | inches of water |
| | Measured (actual) | | | | inches of water |
| | Calculated | | | | inches of water |
| 11 | Type of fabric filters used in baghouse | | | | |
| | Operating temperature | Manufacturer's recommended | N/A | °F | |
| | | Normal | Ambient | °F | |
| | | Maximum | Ambient | °F | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | |
| | | Dew point indicator | Differential pressure instrumentation | | |
| | | Heat exchanger | Evaporative cooler | | |
| | | Transmissometer | Other (describe) | | |
| 13 | Operation of baghouse | Continuous | X | Intermittent | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | Exterior filtration |
| | | Other (describe) | | | |
| | Shape of baghouse | X | Rectangular | Cubical | Cylindrical |
| | | Other (describe) | | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | |
| | Size of baghouse (volume) | FT ³ | | | |
| | Dimensions (Ft) | Height | Length | Width | |
| | Shell material | Mild steel | | | |

MWPS008720

| | | | | | | |
|---|---|-------------------------------------|--|---------------------------------|-------------------|-----------------------|
| Bag cleaning method (check one): | | | | | | |
| 14 | A. Fabric flexing | <input checked="" type="checkbox"/> | Mechanical shaking and rapping | Sonic cleaning | | |
| | | | Collapse cleaning | Pulse (pressure) - jet cleaning | | |
| | B. Reverse air cleaning | | Reverse jet | Reverse flow | Manual cleaning | |
| | Filter configuration | | Panels <input checked="" type="checkbox"/> | Circular cross-section tube | Multiple tube bag | |
| 15 | | | Other (describe) | | | |
| | Filter fabric | <input checked="" type="checkbox"/> | Felted | Woven | | |
| | Filter area | | FT ² | | | |
| | Number of filters per compartment | | | | | |
| | Number of compartments | 1 | | | | |
| Particle size distribution in microns (μ) | | | | | | |
| 16 | Particle type(s) | | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| | Give percentage by weight | | | | | |
| | | | | | | |
| Dust disposal method | | | | | | |
| 17 | | <input checked="" type="checkbox"/> | Automatic (screw conveyor, etc.) | | | |
| | | | Manual | | | |
| | Describe dust disposal method: | | From hopper to truck | | | |
| | How often are hoppers emptied? | Every | hours | | | |
| | Is disposed material wetted before transport? | Yes | <input checked="" type="checkbox"/> | No | | |
| | Site of disposal: | USP Dump | | | | |
| Particulate control efficiency | | | | | | |
| 18 | A. Manufacturer's stated efficiency | | % | | | |
| | B. Required efficiency | | % | | | |
| | C. Operation efficiency (performance testing) | | % | | | |
| | D. Efficiency for particle size | | % | | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| | Give percentage by weight | | | | | |
| Fan Data | | | | | | |
| 19 | Location of the fan | <input checked="" type="checkbox"/> | Clean air side (pull through) | Dirty air side (push through) | | |
| | Type fan (check one) | <input checked="" type="checkbox"/> | Centrifugal (radial-flow) | Axial-flow | | |
| | | | Compressor | | | |
| | Type blade (check one) | | Forward curve | Backward curve | | |
| | | | Straight | Propeller | | |
| | | | Tube-axial | Vane-axial | | |
| Fan Data | | | | | | |
| 20 | Diameter: | inches | Braking Horsepower: | BHP | | |
| | Speed: | RPM | Inlet area: | Ft ² | | |
| | Volume | cfm @ STP | Outlet area | Ft ² | | |
| | Static pressure: | inches WC | Motor horsepower: | HP | | |

| Fan Data (continued) | | | |
|----------------------|---|-----------------|---|
| 20 | Submitted a copy of manufacturer's multirating tables | | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| | For compressor | | Positive displacement |
| | | | Dynamic |
| | | | Reciprocating |
| 21 | Page Number | Revision Number | Date of Revision |
| | N-5 | | |

2/06/95 Chattanooga-Hamilton County Air Pollution Control Bureau

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | | | |
|----|--|---|------------------|---------------------------------------|----------|---------------------|------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | | |
| 2 | Equipment name and identification #: | CDV08 RS Valve Cleaning Baghouse (45C) | | | | | |
| 3 | Stack ID or flow diagram point identification | SV14 | | | | | |
| 4 | Name of manufacturer | Pangborn | | | | | |
| 5 | Model number | 64 HPS-8 | | | | | |
| 6 | Cost of baghouse | \$14,000 | | | | | |
| 7 | Date of installation | 12/87 | | | | | |
| | Date of manufacture | | | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | Yes If yes, what type? (File applicable form for control equipment) | | | | | |
| | | No | | | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 5086 | dscfm | | | | |
| | B. Total cloth area of baghouse | 671 | Ft ² | | | | |
| | Air to cloth ratio (A.) CFM divided by (B.) Ft ² = | 7.6 | Ft/min | | | | |
| 10 | Pressure drop across baghouse | | | | | | |
| | Stated by manufacturer: | 4 | inches of water | | | | |
| | Measured (actual) | | inches of water | | | | |
| | Calculated | 6.2 | inches of water | | | | |
| 11 | Type of fabric filters used in baghouse | Polyester felt | | | | | |
| | Operating temperature | Manufacturer's recommended | N/A | °F | | | |
| | | Normal | Ambient | °F | | | |
| | | Maximum | Ambient | °F | | | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | | Inlet gas temperature instrumentation | | | |
| | | Dew point indicator | | Differential pressure instrumentation | | | |
| | | Heat exchanger | | Evaporative cooler | | | |
| | | Transmissometer | | Other (describe) | | | |
| 13 | Operation of baghouse | Continuous | X | Intermittent | | | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | | Top feed | Exterior filtration | Tangential |
| | | | Other (describe) | | | | |
| | Shape of baghouse | X | Rectangular | | Cubical | Cylindrical | |
| | | | Other (describe) | | | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | | | |
| | Size of baghouse (volume) | 240 | Ft ³ | | | | |
| | Dimensions (Ft) | 8.4 | Height | 5.33 | Length | 5.33 | Width |
| | Shell material | Mild steel | | | | | |

MWPS008723

| | | | | | | |
|---|--|--------------------------------|----------------------------------|---------------------------------|-------------------------------|-----------------------|
| 14 Bag cleaning method (check one): | | | | | | |
| A. Fabric flexing | | Mechanical shaking and rapping | | Sonic cleaning | | |
| | | Collapse cleaning | | Pulse (pressure) - jet cleaning | | |
| B. Reverse air cleaning | | X | Reverse jet | Reverse flow | Manual cleaning | |
| Filter configuration | | Panels | X | Circular cross-section tube | Multiple tube bag | |
| | | Other (describe) | | | | |
| 15 Filter fabric | | X | Felted | Woven | | |
| Filter area | | 671 | FT ² | | | |
| Number of filters per compartment | | 64 | | | | |
| Number of compartments | | 1 | | | | |
| Particle size distribution in microns (μ) | | | | | | |
| 16 Particle type(s) | | | | | | |
| Particle size | | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| Give percentage by weight | | | | | | |
| Dust disposal method | | | | | | |
| | | X | Automatic (screw conveyor, etc.) | | | |
| | | | Manual | | | |
| 17 Describe dust disposal method: | | | Motorized rotary valve | | | |
| How often are hoppers emptied? | | Every | hours | | | |
| Is disposed material wetted before transport? | | Yes | X | No | | |
| Site of disposal: | | USP Dump | | | | |
| Particulate control efficiency | | | | | | |
| 18 A. Manufacturer's stated efficiency | | % | | | | |
| B. Required efficiency | | % | | | | |
| C. Operation efficiency (performance testing) | | % | | | | |
| D. Efficiency for particle size | | % | | | | |
| Give efficiency for particle size | | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ | greater than 44 μ |
| Give percentage by weight | | | | | | |
| Location of the fan | | | | | | |
| | | X | Clean air side (pull through) | | Dirty air side (push through) | |
| 19 Type fan (check one) | | X | Centrifugal (radial-flow) | | Axial-flow | |
| | | | Compressor | | | |
| Type blade (check one) | | X | Forward curve | | Backward curve | |
| | | | Straight | | Propeller | |
| | | | Tube-axial | | Vane-axial | |
| Fan Data | | | | | | |
| 20 Diameter: | | 18.25 | inches | Braking Horsepower: | BHP | |
| Speed: | | 2599 | RPM | Inlet area: | 2.2 Ft ² | |
| Volume | | 5086 | cfm @ STP | Outlet area | 2.3 Ft ² | |
| Static pressure: | | 10 | inches WC | Motor horsepower: | 15 HP | |

| | | | |
|----|---|------------------------------|-----------------------------|
| | | Fan Data (continued) | |
| 20 | Submitted a copy of manufacturer's multirating tables | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| | For compressor | Positive displacement | |
| | | Dynamic | |
| | | Reciprocating | |

| | | | |
|----|---------------------|-----------------|------------------|
| 21 | Page Number -V-6 | Revision Number | Date of Revision |
|----|---------------------|-----------------|------------------|

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | |
|----------------|--|--|---------------------------------------|--------------|-------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Equipment name and identification #: | CDV09 Powder Coating Baghouse - Line #1 (49C) | | | |
| 3 | Stack ID or flow diagram point identification | SV16 | | | |
| 4 | Name of manufacturer | Torit | | | |
| 5 | Model number | 3DF24 | | | |
| 6 | Cost of baghouse | \$18,061 | | | |
| 7 | Date of installation | 9/89 | | | |
| | Date of manufacture | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes If yes, what type? (File applicable form for control equipment) <input type="checkbox"/> No | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 10,000 | dscfm | | |
| | B. Total cloth area of baghouse | 5424 | Ft ² | | |
| | Air to cloth ratio (A.) CFM divided by (B.) Ft ² = | 1.84 | Ft/min | | |
| 10 | Pressure drop across baghouse | | | | |
| | Stated by manufacturer: | 4 | inches of water | | |
| | Measured (actual) | | inches of water | | |
| | Calculated | | inches of water | | |
| 11 | Type of fabric filters used in baghouse | Pleated paper cartridges | | | |
| | Operating temperature | Manufacturer's recommended | 70 | °F | |
| | | Normal | Ambient | °F | |
| | | Maximum | 150 | °F | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | |
| | | Dew point indicator | Differential pressure instrumentation | | |
| | | Heat exchanger | Evaporative cooler | | |
| | | Transmissometer | Other (describe) | | |
| | | | | | |
| 13 | Operation of baghouse | Continuous | <input checked="" type="checkbox"/> | Intermittent | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | Exterior filtration Tangential |
| | | | Other (describe) | | |
| | Shape of baghouse | X | Rectangular | Cubical | Cylindrical |
| | | | Other (describe) | | |
| | Does baghouse have a wear resistant plate? | Yes | <input checked="" type="checkbox"/> | No | |
| | Size of baghouse (volume) | 194 | FT ³ | | |
| | Dimensions (Ft) | 12 | Height | 6.6 | Length 7 Width |
| Shell material | Mild steel | | | | |

MWPS008726

| | | | | | |
|----|---|-------------|----------------------------------|-----------------------------|-------------------------------------|
| 14 | Bag cleaning method (check one): | | | | |
| | A. Fabric flexing | | Mechanical shaking and rapping | | Sonic cleaning |
| | | | Collapse cleaning | | Pulse (pressure) - jet cleaning |
| | B. Reverse air cleaning | X | Reverse jet | Reverse flow | Manual cleaning |
| 15 | Filter configuration | | Panels | Circular cross-section tube | Multiple tube bag |
| | | X | Other (describe) | Pleated paper cartridge | |
| | Filter fabric | | Felted | Woven | |
| | Filter area | 5424 | FT ² | | |
| | Number of filters per compartment | 6 | | | |
| | Number of compartments | 2 | | | |
| 16 | Particle size distribution in microns (μ) | | | | |
| | Particle type(s) | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ greater than 44 μ |
| | Give percentage by weight | | | | |
| 17 | Dust disposal method | | Automatic (screw conveyor, etc.) | | |
| | | X | Manual | | |
| | Describe dust disposal method: | Slide gate | | | |
| | How often are hoppers emptied? | Every | hours | | |
| | Is disposed material wetted before transport? | Yes | X | No | |
| | Site of disposal: | Re-used | | | |
| 18 | Particulate control efficiency | | | | |
| | A. Manufacturer's stated efficiency | 99.3 | % | | |
| | B. Required efficiency | | % | | |
| | C. Operation efficiency (performance testing) | | % | | |
| | D. Efficiency for particle size | | % | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ greater than 44 μ |
| | Give percentage by weight | | | | |
| 19 | Location of the fan | X | Clean air side (pull through) | | Dirty air side (push through) |
| | Type fan (check one) | X | Centrifugal (radial-flow) | | Axial-flow |
| | | | Compressor | | |
| | Type blade (check one) | | Forward curve | X | Backward curve |
| | | | Straight | | Propeller |
| | | Tube-axial | | Vane-axial | |
| 20 | Fan Data | | | | |
| | Diameter: | 22.25 | inches | Braking Horsepower: | 22.2 BHP |
| | Speed: | 2549 | RPM | Inlet area: | 3.4 Ft ² |
| | Volume | 10.000 | cfm @ STP | Outlet area | 2.85 Ft ² |
| | Static pressure: | 10 | inches WC | Motor horsepower: | 25 HP |

| Fan Data (continued) | |
|---|---|
| Submitted a copy of manufacturer's multirating tables | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| For compressor | Positive displacement |
| | Dynamic |
| | Reciprocating |

| Page Number | Revision Number | Date of Revision |
|-------------|-----------------|------------------|
| 21 | V-1 | |

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | | |
|----|--|-------------------------------------|---|--------------|--|---------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | |
| 2 | Equipment name and identification #: | CDV10 Airblast Baghouse (04C) | | | | |
| 3 | Stack ID or flow diagram point identification | SV17 | | | | |
| 4 | Name of manufacturer | Pangborn | | | | |
| 5 | Model number | | | | | |
| 6 | Cost of baghouse | | | | | |
| 7 | Date of installation | Post 1973 | | | | |
| | Date of manufacture | | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes | If yes, what type? (File applicable form for control equipment) | | | |
| | | <input type="checkbox"/> No | | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 4500 | dscfm | | | |
| | B. Total cloth area of baghouse | | Ft ² | | | |
| | Air to cloth ratio (A.) CFM divided by (B.) Ft ² = | | Ft/min | | | |
| 10 | Pressure drop across baghouse | | | | | |
| | Stated by manufacturer: | inches of water | | | | |
| | Measured (actual) | inches of water | | | | |
| | Calculated | inches of water | | | | |
| 11 | Type of fabric filters used in baghouse | | | | | |
| | Operating temperature | Manufacturer's recommended | N/A | °F | | |
| | | Normal | Ambient | °F | | |
| | | Maximum | | °F | | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | | | | |
| | | Dew point indicator | | | | |
| | | Heat exchanger | | | | |
| | | Transmissometer | | | | |
| 13 | Operation of baghouse | Continuous | X | Intermittent | | |
| | Baghouse inlet (dirty gas) | X | Bottom feed | Top feed | | Exterior filtration |
| | | | Other (describe) | | | |
| | Shape of baghouse | X | Rectangular | Cubical | | Cylindrical |
| | | | Other (describe) | | | |
| | Does baghouse have a wear resistant plate? | Yes | X | No | | |
| | Size of baghouse (volume) | Ft ³ | | | | |
| | Dimensions (Ft) | Height | | Length | | Width |
| | Shell material | Mild steel | | | | |

MWPS008729

| | | | | | |
|----|---|-------------------------------------|----------------------------------|-------------------------------------|---|
| 14 | Bag cleaning method (check one): | | | | |
| | A. Fabric flexing | <input checked="" type="checkbox"/> | Mechanical shaking and rapping | <input type="checkbox"/> | Sonic cleaning |
| | | | Collapse cleaning | <input type="checkbox"/> | Pulse (pressure) - jet cleaning |
| | B. Reverse air cleaning | | Reverse jet | <input type="checkbox"/> | Reverse flow <input type="checkbox"/> Manual cleaning <input type="checkbox"/> |
| 15 | Filter configuration | | Panels | <input checked="" type="checkbox"/> | Circular cross-section tube <input type="checkbox"/> Multiple tube bag <input type="checkbox"/> |
| | | | Other (describe) | | |
| | Filter fabric | <input checked="" type="checkbox"/> | Felted | <input type="checkbox"/> | Woven |
| | Filter area | ft ² | | | |
| | Number of filters per compartment | | | | |
| | Number of compartments | 1 | | | |
| 16 | Particle size distribution in microns (μ) | | | | |
| | Particle type(s) | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ greater than 44 μ |
| | Give percentage by weight | | | | |
| 17 | Dust disposal method | <input checked="" type="checkbox"/> | Automatic (screw conveyor, etc.) | | |
| | | <input type="checkbox"/> | Manual | | |
| | Describe dust disposal method: | From hopper to truck | | | |
| | How often are hoppers emptied? | Every | hours | | |
| | Is disposed material wetted before transport? | <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| | Site of disposal: | USP Dump | | | |
| 18 | Particulate control efficiency | | | | |
| | A. Manufacturer's stated efficiency | 99.9 | % | | |
| | B. Required efficiency | | % | | |
| | C. Operation efficiency (performance testing) | | % | | |
| | D. Efficiency for particle size | | % | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ greater than 44 μ |
| | Give percentage by weight | | | | |
| 19 | Location of the fan | <input checked="" type="checkbox"/> | Clean air side (pull through) | <input type="checkbox"/> | Dirty air side (push through) |
| | Type fan (check one) | <input checked="" type="checkbox"/> | Centrifugal (radial-flow) | <input type="checkbox"/> | Axial-flow |
| | | | Compressor | <input type="checkbox"/> | |
| | Type blade (check one) | | Forward curve | <input type="checkbox"/> | Backward curve |
| | | | Straight | <input type="checkbox"/> | Propeller |
| | | Tube-axial | <input type="checkbox"/> | Vane-axial | |
| 20 | Fan Data | | | | |
| | Diameter: | inches | Braking Horsepower: | BHP | |
| | Speed: | RPM | Inlet area: | ft ² | |
| | Volume | cfm @ STP | Outlet area | ft ² | |
| | Static pressure: | inches WC | Motor horsepower: | HP | |

| Fan Data (continued) | | | |
|----------------------|---|--|------------------|
| 20 | Submitted a copy of manufacturer's multirating tables | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | For compressor | Positive displacement | |
| | | Dynamic | |
| | | Reciprocating | |
| 21 | Page Number V-8 | Revision Number | Date of Revision |

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

Major Source Operating Permit Application
Control Equipment - Baghouse/Fabric Filters

Form 70-18

| | | | | | | | |
|----|--|---|---|--|-------------------------------------|---|-------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | | |
| 2 | Equipment name and identification #: | CDV11 Powder Coating Baghouse - Line 2 (48C) | | | | | |
| 3 | Stack ID or flow diagram point identification | SV19 | | | | | |
| 4 | Name of manufacturer | Torit | | | | | |
| 5 | Model number | | | | | | |
| 6 | Cost of baghouse | | | | | | |
| 7 | Date of installation | 1988 | | | | | |
| | Date of manufacture | | | | | | |
| 8 | Does baghouse contain pre-cleaning equipment? | <input type="checkbox"/> Yes | If yes, what type? (File applicable form for control equipment) | | | | |
| | | <input type="checkbox"/> No | | | | | |
| 9 | A. Volume of gas discharged from baghouse at dry standard conditions | 10,000 | dscfm | | | | |
| | B. Total cloth area of baghouse | 5424 | Ft ² | | | | |
| | Air to cloth ratio (A.) CFM divided by (B.) Ft ² = | 1.84 | Ft/min | | | | |
| 10 | Pressure drop across baghouse | | | | | | |
| | Stated by manufacturer: | 4 | inches of water | | | | |
| | Measured (actual) | | inches of water | | | | |
| | Calculated | | inches of water | | | | |
| 11 | Type of fabric filters used in baghouse | Pleated paper cartridges | | | | | |
| | Operating temperature | Manufacturer's recommended | 70 | °F | | | |
| | | Normal | Ambient | °F | | | |
| | | Maximum | 150 | °F | | | |
| 12 | Indicate which of the following are components of this baghouse | Flow rate instrumentation | Inlet gas temperature instrumentation | | | | |
| | | Dew point indicator | Differential pressure instrumentation | | | | |
| | | Heat exchanger | Evaporative cooler | | | | |
| | | Transmissometer | Other (describe) | | | | |
| 13 | Operation of baghouse | Continuous | <input checked="" type="checkbox"/> | Intermittent | | | |
| | Baghouse inlet (dirty gas) | <input checked="" type="checkbox"/> Bottom feed | <input type="checkbox"/> Top feed | <input type="checkbox"/> Exterior filtration | <input type="checkbox"/> Tangential | | |
| | | Other (describe) | | | | | |
| | Shape of baghouse | <input checked="" type="checkbox"/> Rectangular | <input type="checkbox"/> Cubical | <input type="checkbox"/> Cylindrical | | | |
| | | Other (describe) | | | | | |
| | Does baghouse have a wear resistant plate? | Yes | <input checked="" type="checkbox"/> | No | | | |
| | Size of baghouse (volume) | 194 | FT ³ | | | | |
| | Dimensions (Ft) | 12 | Height | 6.6 | Length | 7 | Width |
| | Shell material | Mild steel | | | | | |

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| | | | | | |
|----|---|----------------------------------|--------------------------------|---------------------------------|----------------------|
| 14 | Bag cleaning method (check one): | | | | |
| | A. Fabric flexing | | Mechanical shaking and rapping | Sonic cleaning | |
| | | | Collapse cleaning | Pulse (pressure) - jet cleaning | |
| | B. Reverse air cleaning | X | Reverse jet | Reverse flow | Manual cleaning |
| 15 | Filter configuration | Panels | | Circular cross-section tube | Multiple tube bag |
| | | X | Other (describe) | Pleated paper cartridge | |
| | Filter fabric | Felted | | Woven | |
| | Filter area | 5424 | | FT ² | |
| | Number of filters per compartment | 6 | | | |
| | Number of compartments | 2 | | | |
| 16 | Particle size distribution in microns (μ) | | | | |
| | Particle type(s) | | | | |
| | Particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ |
| | Give percentage by weight | | | | |
| 17 | Dust disposal method | Automatic (screw conveyor, etc.) | | | |
| | | X | Manual | | |
| | Describe dust disposal method: | Slide gate | | | |
| | How often are hoppers emptied? | Every | hours | | |
| | Is disposed material wetted before transport? | Yes | X | No | |
| | Site of disposal: | Re-used | | | |
| 18 | Particulate control efficiency | | | | |
| | A. Manufacturer's stated efficiency | 99.3 | % | | |
| | B. Required efficiency | | % | | |
| | C. Operation efficiency (performance testing) | | % | | |
| | D. Efficiency for particle size | | % | | |
| | Give efficiency for particle size | 0 - 5 μ | 5 - 10 μ | 10 - 20 μ | 20 - 44 μ |
| | Give percentage by weight | | | | |
| 19 | Location of the fan | X | Clean air side (pull through) | Dirty air side (push through) | |
| | Type fan (check one) | X | Centrifugal (radial-flow) | Axial-flow | |
| | | | Compressor | | |
| | Type blade (check one) | | Forward curve | X | Backward curve |
| | | | Straight | | Propeller |
| | | Tube-axial | | Vane-axial | |
| 20 | Fan Data | | | | |
| | Diameter: | 22.25 | inches | Braking Horsepower: | 22.2 BHP |
| | Speed: | 2549 | RPM | Inlet area: | 3.4 Ft ² |
| | Volume | 10,000 | cfm @ STP | Outlet area | 2.85 Ft ² |
| | Static pressure: | 10 | inches WC | Motor horsepower: | 25 HP |

| | | | |
|---------------|---|---|------------------|
| 20 | Fan Data (continued) | | |
| | Submitted a copy of manufacturer's multirating tables | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| | For compressor | Positive displacement | |
| | | Dynamic | |
| Reciprocating | | | |
| 21 | Page Number Y-9 | Revision Number | Date of Revision |

2/06/95

Chattanooga-Hamilton County Air Pollution Control Bureau

Form 70-19

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|--|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V001 Valve & Hydrant Plant - Brass Melting | | |
| 3 | Stack ID or flow diagram point identification | SV01 and SV02 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Tons of brass ingot & scrap processed. Natural gas used for ladle preheat. |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV01 Baghouse |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | | Recordkeeping - Form 70-26 Pollutant(s): | Not Applicable. |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-1 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008736

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V002 Valve & Hydrant Plant - Pouring/Cooling/Shakeout | | |
| 3 | Stack ID or flow diagram point identification | SV03, SV04, and SV05 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Tons of brass poured and greensand mold processed. |
| | | | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | Not Applicable |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | | Recordkeeping - Form 70-26 Pollutant(s): | Not Applicable |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-2 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008737

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|--|---|-----------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V003 Valve & Hydrant Plant - Cleaning and Grinding | | |
| 3 | Stack ID or flow diagram point identification | SV06 and SV07 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Tons of brass castings processed. |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV02 and CDV03 |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | | Recordkeeping - Form 70-26 Pollutant(s): | Not Applicable |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-3 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008738

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|--|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V004 Valve & Hydrant Plant - Greensand Mold Making | | |
| 3 | Stack ID or flow diagram point identification | SV08 and SV09 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Tons of sand and greensand binder processed. |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV04 |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | | Recordkeeping - Form 70-26 Pollutant(s): | Not Applicable |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number | Revision Number | Date of Revision | |
| | V-4 | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008739

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|--|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V005 Valve & Hydrant Plant - Shell Mold Making | | |
| 3 | Stack ID or flow diagram point identification | SV02, SV09 and SV10 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Tons of sand and greensand binder processed. |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV05 Baghouse |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | X | Recordkeeping - Form 70-26 Pollutant(s): | VOC Usages (from Core Paste application) |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number | Revision Number | Date of Revision | |
| | V-5 | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008740

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V006 Valve & Hydrant Plant - Cores Making | | |
| 3 | Stack ID or flow diagram point identification | SV02 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Tons of precoated shell sand; and airset binder, acid, and sand processed. |
| | | | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | Not Applicable |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | X | Recordkeeping - Form 70-26 Pollutant(s): | VOC usages and emissions (from furan binder and catalyst usages) |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-6 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008741

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V007 Valve & Hydrant Plant - Small Valve Production | | |
| 3 | Stack ID or flow diagram point identification | SV11 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Gallons of asphalt paint and solvent used |
| | | | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | Not Applicable |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | X | Recordkeeping - Form 70-26 Pollutant(s): | VOC usages |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number | Revision Number | Date of Revision | |
| | V-7 | | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008742

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V008 Valve & Hydrant Plant - Large Valve Production | | |
| 3 | Stack ID or flow diagram point identification | SV12 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Types and gallons of paints and solvents used |
| | | | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | Not Applicable |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | X | Recordkeeping - Form 70-26 Pollutant(s): | VOC usages |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-8 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008743

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V009 Valve & Hydrant Plant - Hydrant Production | | |
| 3 | Stack ID or flow diagram point identification | SV13 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Types and gallons of paints and solvents used |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV07 Paint booth dry filter pads |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | X | Recordkeeping - Form 70-26 Pollutant(s): | VOC usages |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-9 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008744

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V010 Valve & Hydrant Plant - R/S Valve Production | | |
| 3 | Stack ID or flow diagram point identification | SV14 through SV19 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | Outlet dust flow rate for CDV09/SV15 and hours of operation. |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV08, CDV09, CDV10, and CDV11 |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | | Recordkeeping - Form 70-26 Pollutant(s): | Not Applicable |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-10 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008745

Major Source Operating Permit Application
Compliance Certification - Monitoring and Reporting
Description of Methods Used for Determining Compliance

Form 70-19

All sources that are subject to the Part 70 Operating Permit Program Ordinance/Regulation are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, reporting requirements, and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the director, Chattanooga-Hamilton County Air Pollution Control Bureau.

| | | | | |
|---|--|---|---|-------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | |
| 2 | Process emission source, fuel burning equipment, or incinerator (identify and include equipment identification number): | V011 Valve & Hydrant Plant - Ancillary Operations | | |
| 3 | Stack ID or flow diagram point identification | SV20-SV24 | | |
| 4 | This source as described under item # 2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions for existing permit(s)). Check all that apply and attach the appropriate form(s). | | Continuous emissions monitoring (CEM) - Form 70-20 Pollutant(s): | Not Applicable |
| | | | Emission monitoring using portable monitors - Form 70-21 Pollutant(s): | Not Applicable |
| | | X | Monitoring control system parameters or operating parameters of a process - Form 70-22 Pollutant(s): | tons of pig lead and babbitt melted |
| | | X | Monitoring maintenance procedures - Form 70-23 Pollutant(s): | CDV12 paint booth dry filters |
| | | | Stack testing - Form 70-24 Pollutant(s): | Not Applicable |
| | | | Fuel sampling & analysis (FSA) - Form 70-25 Pollutant(s): | Not Applicable |
| | | | Recordkeeping - Form 70-26 Pollutant(s): | Not Applicable |
| | | | Other (please describe) - Form 70-27 Pollutant(s): | Not Applicable |
| 5 | Compliance certification reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 6 | Compliance monitoring reports will be submitted to the Bureau according to the following schedule: | | | |
| | Start date: | 180 days after issuance of Part 70 Permit | | |
| | and every | 365 days thereafter | | |
| 7 | Page Number V-11 | Revision Number | Date of Revision | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau

MWPS008746

Form 70-22

Major Source Operating Permit Application
*Compliance demonstration by monitoring control system parameters
or operating parameters of a process*

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | | |
|---|---|--|------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | |
| 2 | Stack ID (or flow diagram point identification(s)) | SV01 and SV02 | |
| 3 | Emission source (identify and include equipment identification number) | EV001-EV002, EV003, and EV004 | |
| 4 | Pollutant(s) being monitored | TSP | |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V001 - Valve & Hydrant Plant - Brass Melting includes the following emissions sources: EV001-EV002 Brass Furnaces #1 and #2 discharged thru CDV01/SV01 (90%); EV003 Pouring Ladle discharged thru SV02; and EV004 Ladle Preheat discharged thru SV02. See Book 4 of 4, Tab 1, Emissions Source Fact Sheets for these emission sources.</p> <p>The stack SV01 for EV001-EV002 for Brass Furnaces #1 and #2 and the fuel burning source EV004 Ladle Preheat are considered as insignificant activities; therefore, compliance demonstration for these emission sources are exempted.</p> <p>Compliance demonstration for EV003 Pouring Ladle are based on emission factor and tons of brass/alloy process.</p> | |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually | |
| 7 | Page Number V-1 | Revision Number | Date of Revision |

MWPS008748

Major Source Operating Permit Application
*Compliance demonstration by monitoring control system parameters
or operating parameters of a process*

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV03, SV04, and SV05 |
| 3 | Emission source (identify and include equipment identification number) | EV005, EV006, and EV007 |
| 4 | Pollutant(s) being monitored | TSP |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V002 - Valve & Hydrant Plant - Pouring/Cooling/Shakeout includes the following emissions sources: EV005 Shell Mold Poring discharged thru SV03; EV006 Greensand Mold Pouring discharged thru SV04; and EV007 Greensand Shakeout discharged thru SV05. See Book 4 of 4, Tab 2, Emissions Source Fact Sheets for these emission sources.</p> <p>Compliance demonstrations are based on emission factor and tons of brass/alloy processed and tons of greensand processed.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number | Revision Number |
| | Y-2 | Date of Revision |

MWPS008749

Major Source Operating Permit Application
*Compliance demonstration by monitoring control system parameters
or operating parameters of a process*

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV06 and SV07 |
| 3 | Emission source (identify and include equipment identification number) | EV008-09 Tumble Blasts, and EV010-12 Cut-Off & Grind |
| 4 | Pollutant(s) being monitored | TSP |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V003 - Valve & Hydrant Plant - Cleaning and Grinding includes the following emissions sources: EV008 and EV009 Tumble Blasts discharged thru CDV02/SV06; EV010 Cut-Off, and EV011-EV012 Grinders discharged thru CDV03/SV07. See Book 4 of 4, Tab 3, Emissions Source Fact Sheets for these emission sources.</p> <p>Compliance demonstrations for the Cut-Off and Grinding (EV010, EV011, and EV012) are based on emission factor and tons of brass/alloy castings processed. Emission stack SV06 for EV008-EV009 for Tumble Blasts is considered as insignificant activity; therefore, compliance demonstrations for tumble blasts are exempted.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number | Revision Number |
| | V-3 | Date of Revision |

MWPS008750

Major Source Operating Permit Application
Compliance demonstration by monitoring control system parameters
or operating parameters of a process

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV08 and SV09 |
| 3 | Emission source (identify and include equipment identification number) | EV013 Greensand Mullor & EV014 Greensand Mold Formin |
| 4 | Pollutant(s) being monitored | TSP |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V004 - Valve & Hydrant Plant - Greensand Mold Making includes the following emissions sources: EV013 Greensand Mullor discharged thru CDV04/SV08; EV014 Greensand Mold Making discharged thru SV09. See Book 4 of 4, Tab 4, Emissions Source Fact Sheets for these emission sources.</p> <p>Emission stacks SV08 for EV013 Greensand Mullor and SV09 for EV014 Greensand Mold Forming are considered as insignificant activity; therefore, compliance demonstrations for these emission sources are exempted.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number | Revision Number |
| | V-4 | Date of Revision |

MWPS008751

Major Source Operating Permit Application
*Compliance demonstration by monitoring control system parameters
or operating parameters of a process*

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV02, SV09 and SV10 |
| 3 | Emission source (identify and include equipment identification number) | EV015, EV016, and EV107 |
| 4 | Pollutant(s) being monitored | TSP and VOC |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V005 - Valve & Hydrant Plant - Shell Mold Making includes the following emissions sources: EV015 Shell Sand Handling and EV016 Shell Mold Curing discharged thru SV09; and EV017 Mold Cooling & Pasting Station discharged thru CDV05/SV10. See Book 4 of 4, Tab 5, Emissions Source Fact Sheets for these emission sources.</p> <p>Emission stack SV09 for EV015 Shell Sand Handling, and EV016 Shell Mold Curing are considered as insignificant activities; therefore, compliance demonstrations for these emission sources are exempted.</p> <p>Compliance demonstrations for VOC usages and emissions from EV017 Mold Cooling & Pasting Station are based on amount of core paste used.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number V-5 | Revision Number Date of Revision |

MWPS008752

Major Source Operating Permit Application

Compliance demonstration by monitoring control system parameters
or operating parameters of a process

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV02 |
| 3 | Emission source (identify and include equipment identification number) | EV018, EV019, EV020, and EV021 |
| 4 | Pollutant(s) being monitored | TSP and VOC |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V006 - Valve & Hydrant Plant - Cores Making includes the following emissions sources: EV018 Shell Core Sand Handling, EV019 Shell Core Curing, EV020 Airset Core Mixer; and EV021 Airset Core Forming all discharged as fugitive emissions thru the roof eaves and exhaust vents of the brass foundry building SV02. See Book 4 of 4, Tab 5, Emissions Source Fact Sheets for these emission sources.</p> <p>The EV019 Shell Cores Curing are considered as insignificant activities; therefore, compliance demonstrations for these fuel burning emission sources are exempted.</p> <p>Compliance demonstrations for TSP emissions from EV018, EV020 and EV021 are based on emission factors, and tons of sand (precoated shell core sand and airset sand) processed. Compliance demonstrations for VOC usages and emissions from EV020 Airset Core Mixer are based on types and amount of core (furan) binder and catalyst used.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number | Revision Number |
| | V-6 | Date of Revision |

MWPS008753

Major Source Operating Permit Application
*Compliance demonstration by monitoring control system parameters
or operating parameters of a process*

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV11 |
| 3 | Emission source (identify and include equipment identification number) | EV022 Small Valve Production Spray Paint Booth |
| 4 | Pollutant(s) being monitored | TSP and VOC |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V007 - Valve & Hydrant Plant - Small Valve Production includes the EV022 Spray Paint Booth discharged thru CDV06/SV11. See Book 4 of 4, Tab 7, Emissions Source Fact Sheet for this emission source.</p> <p>Compliance demonstrations for the asphalt coating process (EV022) are based on the amount of asphalt paint and solvent delivered the spray booth.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number | Revision Number Date of Revision |
| | V-7 | |

MWPS008754

Major Source Operating Permit Application
*Compliance demonstration by monitoring control system parameters
or operating parameters of a process*

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV12 |
| 3 | Emission source (identify and include equipment identification number) | EV023 Large Valve Production Touchup Coating |
| 4 | Pollutant(s) being monitored | TSP and VOC |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V008 - Valve & Hydrant Plant - Large Valve Production includes the EV023 Touchup Coating discharged thru SV12. See Book 4 of 4, Tab 8, Emissions Source Fact Sheet for this emission source.</p> <p>Compliance demonstrations for the touchup coating process (EV023) are based on the type and amount of paints and solvents used for touchup coating.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number V-8 | Revision Number Date of Revision |

MWPS008755

Major Source Operating Permit Application
Compliance demonstration by monitoring control system parameters
or operating parameters of a process

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV13 |
| 3 | Emission source (identify and include equipment identification number) | EV024 Hydrant Production Spray Paint Booth |
| 4 | Pollutant(s) being monitored | TSP and VOC |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V008 - Valve & Hydrant Plant - Hydrant Production includes the EV024 Spray Paint Booth discharged thru CDV07/SV13. See Book 4 of 4, Tab 9, Emissions Source Fact Sheet for this emission source.</p> <p>Compliance demonstrations for the hydrant production spray paint booth (EV024) are based on the type and amount of paints and solvents used.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number | Revision Number Date of Revision |
| | V-9 | |

Major Source Operating Permit Application

Compliance demonstration by monitoring control system parameters
or operating parameters of a process

Form 70-22

The monitoring of a control system parameter or a process parameter shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value and the emission rate of a particular pollutant is established.

| | | |
|---|---|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV20 for the Lead Metal Melting |
| 3 | Emission source (identify and include equipment identification number) | EV031 Lead Metal Melting |
| 4 | Pollutant(s) being monitored | Lead and TSP |
| 5 | Description of the method of monitoring and correlation between the parameter value and the emission rate of a particular pollutant | <p>Process Area V011 - Valve & Hydrant Plant - Ancillary Operations includes the EV031 Lead Kettle Melting and other insignificant activities. See Book 4 of 4, Tab 11, Emission Source Fact Sheets for these emission sources.</p> <p>The insignificant activities include the gas-fired fuel burning sources (EV032 Lead Kettle Heating, EV033 R/S Valve Burn-Off Oven, EV034-EV035 Hot Water Heaters #1 and #2, EV036 Special Coating Paint Booth, and EV037-EV048 Parts Washers; therefore, compliance demonstrations for these emission sources are exempted.</p> <p>Compliance demonstration for EV031 Lead Kettle Melting is based on emission factors and tons of lead and babbitt melted.</p> |
| 6 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually |
| 7 | Page Number v-11 | Revision Number Date of Revision |

MWPS008757

Form 70-23

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | | |
|---|---|---|------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | |
| 2 | Stack ID (or flow diagram point identification(s)) | SV01 | |
| 3 | Emission source (identify and include equipment identification number) | EV001-EV002 Brass Furnaces #1 and #2 | |
| 4 | Pollutant(s) being monitored | TSP | |
| 5 | Procedure being monitored | Replacement of fabric filters. Repair of cleaning system, collector, duct work, and hood. | |
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | Weekly walk through inspection of the baghouse housing, related structure, stack blower system, and baghouse dust bin. Periodic inspection of fabric filters will be conducted if needed. These procedures will ensure that the baghouse system (CDV01) is operating within the design parameters for the control of particulate emissions. | |
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. | |
| 8 | Page Number | Revision Number | Date of Revision |
| | V-1 | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2495

MWPS008759

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---|--|-------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV06 and SV07 |
| 3 | Emission source (identify and include equipment identification number) | EV008-EV009, and EV010-EV012 |
| 4 | Pollutant(s) being monitored | TSP |

5

| | |
|---------------------------|---|
| Procedure being monitored | Replacement of fabric filters. Repair of cleaning system, collector, duct work, and hood. |
|---------------------------|---|

| | | |
|---|---|--|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | Weekly walk through inspection of the baghouse housing, related structures, stack blower systems, and baghouse dust bins. Periodic inspection of fabric filters will be conducted if needed. These procedures will ensure that the corresponding baghouse systems (CDV02 and CDV03) are operating within the design parameters for the control of particulate emissions. |
|---|---|--|

| | | |
|---|---|-----------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
|---|---|-----------|

| | | | |
|---|-------------|-----------------|------------------|
| 8 | Page Number | Revision Number | Date of Revision |
| | V-2 | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2495

MWPS008760

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---|--|-------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV08 |
| 3 | Emission source (identify and include equipment identification number) | EV013 Greensand Mullor |
| 4 | Pollutant(s) being monitored | TSP |

5

| | |
|---------------------------|---|
| Procedure being monitored | Replacement of fabric filters. Repair of cleaning system, collector, duct work, and hood. |
|---------------------------|---|

| | | |
|---|---|---|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | Weekly walk through inspection of the baghouse housing, related structure, stack blower system, and baghouse dust bin. Periodic inspection of fabric filters will be conducted if needed. These procedures will ensure that the baghouse system (CDV04) is operating within the design parameters for the control of particulate emissions. |
|---|---|---|

| | | |
|---|---|-----------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
|---|---|-----------|

| | | | |
|---|-------------|-----------------|------------------|
| 8 | Page Number | Revision Number | Date of Revision |
| | V-3 | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2495

MWPS008761

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---|--|--------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV10 |
| 3 | Emission source (identify and include equipment identification number) | EV017 Mold Cooling & Pasting Station |
| 4 | Pollutant(s) being monitored | TSP |

5
 Procedure being monitored Replacement of fabric filters. Repair of cleaning system, collector, duct work, and hood.

| | | |
|---|---|---|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | Weekly walk through inspection of the baghouse housing, related structure, stack blower system, and baghouse dust bin. Periodic inspection of fabric filters will be conducted if needed. These procedures will ensure that the baghouse system (CDV05) is operating within the design parameters for the control of particulate emissions. |
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
| 8 | Page Number V-4 | Revision Number Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2495

MWPS008762

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---------------------------|--|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV11 |
| 3 | Emission source (identify and include equipment identification number) | EV022 Small Valve Production Spray Paint Booth |
| 4 | Pollutant(s) being monitored | TSP |
| Procedure being monitored | | Spray paint booth dry filter pads. |

5

| | | |
|---|---|---|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | Weekly inspection of the filter media and exhaust blower system of the spray booth. Periodic replacement of the dry filters if needed. These procedures will ensure that this spray booth is operating within the design parameters for the control of particulate emissions. |
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
| 8 | Page Number v-5 | Revision Number Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2495

MWPS008763

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---------------------------|--|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV13 |
| 3 | Emission source (identify and include equipment identification number) | EV024 Hydrant Production Spray Paint Booth |
| 4 | Pollutant(s) being monitored | TSP |
| Procedure being monitored | | Spray paint booth dry filter pads. |

5

| | | | |
|---|---|---|------------------|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | Weekly inspection of the filter media and exhaust blower system of the spray booth. Periodic replacement of the dry filters if needed. These procedures will ensure that this spray booth is operating within the design parameters for the control of particulate emissions. | |
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. | |
| 8 | Page Number | Revision Number | Date of Revision |
| | V-6 | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2495

MWPS008764

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---|--|-------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV14, SV15, SV18, and SV19 |
| 3 | Emission source (identify and include equipment identification number) | EV025, EV026, EV029, and EV030 |
| 4 | Pollutant(s) being monitored | TSP |

| | | |
|---|---------------------------|---|
| 5 | Procedure being monitored | Replacement of fabric filters. Repair of cleaning systems, collectors, duct works, and hoods. |
|---|---------------------------|---|

| | | |
|---|---|---|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | <p>Weekly walk through inspection of the baghouse housing, related structures, stack blower systems, and baghouse dust bins. Periodic inspection of fabric filters will be conducted if needed. These procedures will ensure that the corresponding baghouse systems (CDV08, CDV09, CDV10, and CDV11) are operating within the design parameters for the control of particulate emissions.</p> <p>Note: Baghouses CDV08, CDV10, and CDV11 control emission sources that are considered as insignificant activities.</p> |
|---|---|---|

| | | |
|---|---|-----------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
|---|---|-----------|

| | | | |
|---|-------------|-----------------|------------------|
| 8 | Page Number | Revision Number | Date of Revision |
| | V-7 | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard
Chattanooga, Tennessee 37407-2495

MWPS008765

Major Source Operating Permit Application
Compliance demonstration by monitoring maintenance procedures

Form 70-23

The monitoring of a maintenance procedure shall be acceptable as a compliance demonstration method provided that a correlation between the procedure and the emission rate of a particular pollutant is established.

| | | |
|---|--|-------------------------------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV24 |
| 3 | Emission source (identify and include equipment identification number) | EV036 Special Coating Paint Booth |
| 4 | Pollutant(s) being monitored | TSP |

Procedure being monitored

Spray paint booth dry filter pads.

5

| | | |
|---|---|---|
| 6 | Description of the method of monitoring and correlation between the procedure and the emission rate of a particular pollutant | <p>Weekly inspection of the filter media and exhaust blower system of the spray booth. Periodic replacement of dry filters if needed. These procedures will ensure that this spray booth is operating within the design parameters for the control of paint overspray particulates.</p> <p>Note: Due to low usages of coating, this spray booth is considered as an insignificant activity.</p> |
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
| 8 | Page Number | Revision Number |
| | V-8 | Date of Revision |

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Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard
 Chattanooga, Tennessee 37407-2495

MWPS008766

Form 70-26

Major Source Operating Permit Application
Compliance demonstration by recordkeeping

Form 70-26

| | | |
|------------------------------------|--|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV02 |
| 3 | Emission source (identify and include equipment identification number) | EV020 Airset Core Mixer |
| 4 | Pollutant(s) or parameter being monitored | VOC |
| 5 | Material or parameter being monitored and recorded | Log of VOC-containing material usages |
| Method of monitoring and recording | | Fiscal accounting of VOC-containing materials (furan binder and acid) used for airset cores . |

6

| | | | |
|---|---|-----------------|------------------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. | |
| 8 | Page Number | Revision Number | Date of Revision |
| | V-2 | | |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard

MWPS008768

Major Source Operating Permit Application
Compliance demonstration by recordkeeping

Form 70-26

| | | |
|------------------------------------|--|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV10 |
| 3 | Emission source (identify and include equipment identification number) | EV017 Molding Cooling & Pasting Station |
| 4 | Pollutant(s) or parameter being monitored | VOC |
| 5 | Material or parameter being monitored and recorded | Log of VOC-containing material usages |
| Method of monitoring and recording | | Fiscal accounting of VOC-containing materials used for pasting the shell core together. |

6

| | | |
|---|---|-------------------------------------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
| 8 | Page Number 1-1 | Revision Number Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard

MWPS008769

Major Source Operating Permit Application
Compliance demonstration by recordkeeping

Form 70-26

| | | |
|------------------------------------|--|--|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV11 |
| 3 | Emission source (identify and include equipment identification number) | EV022 Small Valve Production Spray Paint Booth |
| 4 | Pollutant(s) or parameter being monitored | VOC |
| 5 | Material or parameter being monitored and recorded | Log of asphalt paint and solvent used at this coating line. |
| Method of monitoring and recording | | Keeping records of type and quantity of asphalt paint and solvent used at this coating line. |

6

| | | |
|---|---|-------------------------------------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
| 8 | Page Number v-3 | Revision Number Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
 3511 Rossville Boulevard

MWPS008770

Major Source Operating Permit Application
Compliance demonstration by recordkeeping

Form 70-26

| | | |
|------------------------------------|--|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID (or flow diagram point identification(s)) | SV12 |
| 3 | Emission source (identify and include equipment identification number) | EV024 Hydrant Production Spray Paint Booth. |
| 4 | Pollutant(s) or parameter being monitored | VOC |
| 5 | Material or parameter being monitored and recorded | Log of paints and solvents used for this coating line. |
| Method of monitoring and recording | | Keeping records of type and quantity of paints and solvents used for hydrant production area. |

6

| | | |
|---|---|-------------------------------------|
| 7 | Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated) | Annually. |
| 8 | Page Number V-5 | Revision Number Date of Revision |

3/04/96

Chattanooga-Hamilton County Air Pollution Control Bureau
3511 Rossville Boulevard

MWPS008771

Form 70-28

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV01 & SV02 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV001-02 Melting Furnaces #1 & #2 (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V001 - BRASS MELTING
EV001-EV002 - MELTING FURNACES #1 AND #2**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (PM10) | .436 | .1 | .072 | .06 |
| PARTICULATE MATTER (PM10) (Fugitive) | .072 | .017 | .012 | .01 |
| PARTICULATE MATTER (TSP) | 11.263 | 2.571 | .072 | .06 |
| PARTICULATE MATTER (TSP) (Fugitive) | .033 | .017 | .012 | .01 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V001 BRASS MELTING, EV001-EV002 MELTING FURNACES #1 AND #2. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV003 Hot Metal Transfer (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | | | | | |
| | | | | | |



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V001 - BRASS MELTING
EV003 - HOT METAL TRANSFER**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (PM10) (Fugitive) | .02 | .005 | .003 | .003 |
| PARTICULATE MATTER (TSP) (Fugitive) | 11.3 | 2.58 | .007 | .006 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V001 BRASS MELTING, EV003 HOT METAL TRANSFER. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--------------------------------------|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV004 Ladle Preheat (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

MWPS008777



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V001 - BRASS MELTING
EV004 - LADLE PREHEAT****Regulated air pollutants.**

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) | .052 | .012 | .017 | .012 |
| NITROGEN OXIDES (NO _x) | .247 | .056 | .081 | .056 |
| PARTICULATE MATTER (TSP) | 1.48 | .338 | .003 | .002 |
| SULFUR DIOXIDE (SO ₂) | 9.864 | 2.252 | 4.86E-04 | 3.38E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .013 | .003 | .004 | .003 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|-----------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | 5.23E-04 | 1.19E-04 | 1.72E-04 | 1.19E-04 |
| FORMALDEHYDE, 50-00-0 | .001 | 2.36E-04 | 3.40E-04 | 2.36E-04 |
| TOLUENE, 108-88-3 | 2.61E-04 | 5.97E-05 | 8.59E-05 | 5.97E-05 |

End of emission summary for V001 BRASS MELTING, EV004 LADLE PREHEAT. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV03 & SV04 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV005 Shell Mold Pouring (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

MWPS008779



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

V002 - POURING/COOLING/SHAKEOUT
EV005 - SHELLSAND MOLD POURING

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|---|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (PM10) | .123 | .028 | .02 | .017 |
| PARTICULATE MATTER (PM10) (Fugitive) | .039 | .009 | .006 | .005 |
| PARTICULATE MATTER (TSP) | 12.014 | 2.743 | .02 | .017 |
| PARTICULATE MATTER (TSP) (Fugitive) | .018 | .009 | .006 | .005 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .004 | 8.16E-04 | 5.88E-04 | 4.90E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | .003 | 7.84E-04 | 5.64E-04 | 4.70E-04 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V002 - POURING/COOLING/SHAKEOUT
EV005 - SHELLSAND MOLD POURING**

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | .003 | 6.63E-04 | 4.77E-04 | 3.98E-04 |
| BENZENE, 71-43-2 (Fugitive) | .003 | 6.37E-04 | 4.59E-04 | 3.82E-04 |
| FORMALDEHYDE, 50-00-0 | 1.56E-04 | 3.57E-05 | 2.57E-05 | 2.14E-05 |
| FORMALDEHYDE, 50-00-0 (Fugitive) | 1.50E-04 | 3.43E-05 | 2.47E-05 | 2.06E-05 |

End of emission summary for V002 POURING/COOLING/SHAKEOUT, EV005SHELLSAND MOLD POURING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV04 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV006 Greensand Mold Pouring (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008782



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V002 - POURING/COOLING/SHAKEOUT
EV006 - GREENSAND MOLD POURING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BERYLLIUM (Fugitive) | 4.63E-08 | 1.06E-08 | 7.60E-09 | 6.34E-09 |
| LEAD (Fugitive) | 1.27E-05 | 2.90E-06 | 2.09E-06 | 1.74E-06 |
| MERCURY (Fugitive) | 3.85E-05 | 8.80E-06 | 6.34E-06 | 5.28E-06 |
| PARTICULATE MATTER (PM10) (Fugitive) | .318 | .073 | .052 | .044 |
| PARTICULATE MATTER (TSP) (Fugitive) | 39.122 | 8.932 | .052 | .044 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | .245 | .056 | .04 | .034 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V002 - POURING/COOLING/SHAKEOUT
EV006 - GREENSAND MOLD POURING**

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| ANTIMONY, 7440-36-0 (Fugitive) | 9.25E-07 | 2.11E-07 | 1.52E-07 | 1.27E-07 |
| ARSENIC, 7440-38-2 (Fugitive) | 1.16E-07 | 2.64E-08 | 1.90E-08 | 1.58E-08 |
| BENZENE, 71-43-2 (Fugitive) | .089 | .02 | .015 | .012 |
| CADMIUM, 7440-43-9 (Fugitive) | 9.25E-07 | 2.11E-07 | 1.52E-07 | 1.27E-07 |
| CHROMIUM, 7440-47-3 (Fugitive) | 7.63E-05 | 1.74E-05 | 1.25E-05 | 1.05E-05 |
| COBALT, 7440-48-4 (Fugitive) | 4.05E-07 | 9.24E-08 | 6.65E-08 | 5.54E-08 |
| FORMALDEHYDE, 50-00-0 (Fugitive) | .008 | .002 | .001 | .001 |
| MANGANESE, 7439-96-5 (Fugitive) | 7.63E-05 | 1.74E-05 | 1.25E-05 | 1.05E-05 |
| NICKEL, 7440-02-0 (Fugitive) | 2.89E-05 | 6.60E-06 | 4.75E-06 | 3.96E-06 |
| SELENIUM, 7782-49-2 (Fugitive) | 1.16E-07 | 2.64E-08 | 1.90E-08 | 1.58E-08 |

End of emission summary for V002 POURING/COOLING/SHAKEOUT, EV006GREENSAND MOLD POURING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
|---|---|---|-----------------|------------------|-----------------|
| 2 | Stack ID or flow diagram point identification(s) | SV05 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV007 Greensand Shakeout (see Attachment) | | | |
| Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | | |
| Air Pollutant | | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| 4 | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V002 - POURING/COOLING/SHAKEOUT
EV007 - GREENSAND SHAKEOUT**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|---|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (PM10) (Fugitive) | 21.369 | 4.879 | 3.513 | 2.927 |
| PARTICULATE MATTER (TSP) (Fugitive) | 39.122 | 8.932 | 5.018 | 4.182 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | 17.212 | 3.93 | 2.829 | 2.358 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V002 POURING/COOLING/SHAKEOUT, EV007 GREENSAND SHAKEOUT. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV06 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV008-09 Tumble Blasts (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V003 - BRASS CLEANING & GRINDING
EV008-EV009 - TUMBLE BLASTS**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | 2.418 | .552 | .011 | .009 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V003 BRASS CLEANING & GRINDING, EV008-EV009 TUMBLE BLASTS. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV07 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV010-12 Cut-Off & Grinding (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008789



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V003 - BRASS CLEANING & GRINDING
EV010-EV012 - CUT-OFF AND GRINDING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | 3.379 | .771 | .009 | .009 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V003 BRASS CLEANING & GRINDING, EV010-EV012 CUT-OFF AND GRINDING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV08 & SV09 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV013 Greensand Mullor (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008791



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V004 - GREENSAND MOLD MAKING
EV013 - GREENSAND MULLOR**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|-------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | 2.628 | .6 | .027 | .023 |
| PARTICULATE MATTER (TSP) (Fugitive) | .167 | .084 | .1 | .084 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V004 GREENSAND MOLD MAKING, EV013 GREENSAND MULLOR. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|-------------------------------------|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV09 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV014 Mold Forming (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008793



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V004 - GREENSAND MOLD MAKING
EV014 - MOLD FORMING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|-------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) (Fugitive) | 25.495 | 5.821 | .033 | .028 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V004 GREENSAND MOLD MAKING, EV014 MOLD FORMING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV09 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV015 Shell Sand Handling (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008795



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V005 - SHELL MOLD MAKING
EV015 - SHELL SAND HANDLING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|-------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) (Fugitive) | 3.885 | .887 | 6.89E-04 | 5.74E-04 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V005 SHELL MOLD MAKING, EV015 SHELL SAND HANDLING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV016 Shell Mold Curing (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008797



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V005 - SHELL MOLD MAKING
EV016 - SHELL MOLD CURING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|---|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) (Fugitive) | .124 | .028 | .011 | .028 |
| NITROGEN OXIDES (NOx) (Fugitive) | .592 | .135 | .052 | .135 |
| PARTICULATE MATTER (TSP) (Fugitive) | 4.678 | 1.068 | .002 | .005 |
| SULFUR DIOXIDE (SO2) (Fugitive) | 31.186 | 7.12 | 3.11E-04 | 8.11E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | .031 | .007 | .003 | .007 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 (Fugitive) | .001 | 2.87E-04 | 1.10E-04 | 2.87E-04 |
| FORMALDEHYDE, 50-00-0 (Fugitive) | .002 | 5.68E-04 | 2.18E-04 | 5.68E-04 |
| TOLUENE, 108-88-3 (Fugitive) | 6.28E-04 | 1.43E-04 | 5.50E-05 | 1.43E-04 |

End of emission summary for V005 SHELL MOLD MAKING, EV016 SHELL MOLD CURING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV02 & SV10 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV017 Shell Cooling & Pasting (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

MWPS008799



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V005 - SHELL MOLD MAKING
EV017 - COOLING & PASTING STATION**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .001 | 2.30E-04 | 8.83E-05 | 2.30E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | 1.12E-04 | 2.55E-05 | 9.81E-06 | 2.55E-05 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V005 SHELL MOLD MAKING, EV017 COOLING & PASTING STATION. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|------------------|-----------------|--|---------------|-----------------------------|--|------------------|--|---------------|-----------------|---------------|-----------------|--------------------|--|--|--|--|----------------------|--|--|--|--|----------------|--|--|--|--|----------------------|--|--|--|--|----------------------------|--|--|--|--|----------------------|--|--|--|--|-----------------|--|--|--|--|----------------------|--|--|--|--|------|--|--|--|--|----------------------|--|--|--|--|-----------------|--|--|--|--|----------------------|--|--|--|--|----------------------|--|--|--|--|----------------------|--|--|--|--|---------|--|--|--|--|----------------------|--|--|--|--|----------|--|--|--|--|----------------------|--|--|--|--|-----------|--|--|--|--|----------------------|--|--|--|--|----------------|--|--|--|--|----------------------|--|--|--|--|-----------|--|--|--|--|----------------------|--|--|--|--|-------------------|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV018 Shell Core Sand Handling (see Attachment) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references.</p> <table border="1"> <thead> <tr> <th rowspan="2">Air Pollutant</th> <th colspan="2">Maximum allowable emissions</th> <th colspan="2">Actual emissions</th> </tr> <tr> <th>Tons per year</th> <th>Pounds per hour</th> <th>Tons per year</th> <th>Pounds per hour</th> </tr> </thead> <tbody> <tr> <td>Particulates (TSP)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sulfur dioxide</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Volatile organic compounds</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Carbon monoxide</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Lead</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Nitrogen oxides</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total reduced sulfur</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mercury</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Asbestos</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Beryllium</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Vinyl chloride</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fluorides</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gaseous fluorides</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | Air Pollutant | Maximum allowable emissions | | Actual emissions | | Tons per year | Pounds per hour | Tons per year | Pounds per hour | Particulates (TSP) | | | | | (Fugitive emissions) | | | | | Sulfur dioxide | | | | | (Fugitive emissions) | | | | | Volatile organic compounds | | | | | (Fugitive emissions) | | | | | Carbon monoxide | | | | | (Fugitive emissions) | | | | | Lead | | | | | (Fugitive emissions) | | | | | Nitrogen oxides | | | | | (Fugitive emissions) | | | | | Total reduced sulfur | | | | | (Fugitive emissions) | | | | | Mercury | | | | | (Fugitive emissions) | | | | | Asbestos | | | | | (Fugitive emissions) | | | | | Beryllium | | | | | (Fugitive emissions) | | | | | Vinyl chloride | | | | | (Fugitive emissions) | | | | | Fluorides | | | | | (Fugitive emissions) | | | | | Gaseous fluorides | | | | | (Fugitive emissions) | | | | | | | | | | | | | | | | | | | |
| Air Pollutant | Maximum allowable emissions | | Actual emissions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Particulates (TSP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfur dioxide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Volatile organic compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon monoxide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen oxides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total reduced sulfur | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asbestos | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluorides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gaseous fluorides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V006 - CORES MAKING
EV018 - SHELL CORE SAND HANDLING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|-------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) (Fugitive) | .537 | .123 | 6.79E-05 | 1.18E-04 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V006 CORES MAKING, EV018 SHELL CORE SAND HANDLING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
|---|---|---|-----------------|------------------|-----------------|
| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV019 Shell Core Sand Curing (see Attachment) | | | |
| Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| 4 | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| Vinyl chloride | | | | | |
| (Fugitive emissions) | | | | | |
| Fluorides | | | | | |
| (Fugitive emissions) | | | | | |
| Gaseous fluorides | | | | | |
| (Fugitive emissions) | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V006 - CORES MAKING
EV019 - SHELL CORE SAND CURING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|---|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) (Fugitive) | .062 | .014 | .003 | .014 |
| NITROGEN OXIDES (NOx) (Fugitive) | .295 | .067 | .013 | .067 |
| PARTICULATE MATTER (TSP) (Fugitive) | 3.206 | .732 | 5.13E-04 | .003 |
| SULFUR DIOXIDE (SO2) (Fugitive) | 21.374 | 4.88 | 7.77E-05 | 4.05E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | .016 | .004 | 6.84E-04 | .004 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 (Fugitive) | 6.26E-04 | 1.43E-04 | 2.75E-05 | 1.43E-04 |
| FORMALDEHYDE, 50-00-0 (Fugitive) | .001 | 2.83E-04 | 5.44E-05 | 2.83E-04 |
| TOLUENE, 108-88-3 (Fugitive) | 3.13E-04 | 7.14E-05 | 1.37E-05 | 7.15E-05 |

End of emission summary for V006 CORES MAKING, EV019 SHELL CORE SAND CURING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV020 Airset Core Sand Mixer (see Attachment) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references.</p> <table border="1"> <thead> <tr> <th rowspan="2">Air Pollutant</th> <th colspan="2">Maximum allowable emissions</th> <th colspan="2">Actual emissions</th> </tr> <tr> <th>Tons per year</th> <th>Pounds per hour</th> <th>Tons per year</th> <th>Pounds per hour</th> </tr> </thead> <tbody> <tr> <td>Particulates (TSP)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sulfur dioxide</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Volatile organic compounds</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Carbon monoxide</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Lead</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Nitrogen oxides</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total reduced sulfur</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mercury</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Asbestos</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Beryllium</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Vinyl chloride</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fluorides</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Gaseous fluorides</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(Fugitive emissions)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | Air Pollutant | Maximum allowable emissions | | Actual emissions | | Tons per year | Pounds per hour | Tons per year | Pounds per hour | Particulates (TSP) | | | | | (Fugitive emissions) | | | | | Sulfur dioxide | | | | | (Fugitive emissions) | | | | | Volatile organic compounds | | | | | (Fugitive emissions) | | | | | Carbon monoxide | | | | | (Fugitive emissions) | | | | | Lead | | | | | (Fugitive emissions) | | | | | Nitrogen oxides | | | | | (Fugitive emissions) | | | | | Total reduced sulfur | | | | | (Fugitive emissions) | | | | | Mercury | | | | | (Fugitive emissions) | | | | | Asbestos | | | | | (Fugitive emissions) | | | | | Beryllium | | | | | (Fugitive emissions) | | | | | Vinyl chloride | | | | | (Fugitive emissions) | | | | | Fluorides | | | | | (Fugitive emissions) | | | | | Gaseous fluorides | | | | | (Fugitive emissions) | | | | | | | | | | | | | | | | | | | |
| Air Pollutant | Maximum allowable emissions | | Actual emissions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Particulates (TSP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfur dioxide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Volatile organic compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carbon monoxide | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen oxides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total reduced sulfur | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asbestos | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluorides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gaseous fluorides | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Fugitive emissions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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MWPS008805



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V006 - CORES MAKING
EV020 - AIRSET CORE SAND MIXER**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) (Fugitive) | 3.602 | .822 | .026 | .045 |
| VOLATILE ORGANIC COMPOUNDS (VOC) (Fugitive) | .022 | .005 | .003 | .005 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| FORMALDEHYDE, 50-00-0 (Fugitive) | 9.26E-07 | 2.11E-07 | 1.22E-07 | 2.12E-07 |
| PHENOL, 108-95-2 (Fugitive) | 1.63E-06 | 3.73E-07 | 2.15E-07 | 3.73E-07 |

End of emission summary for V006 CORES MAKING, EV020AIRSET CORE SAND MIXER. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV02 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV021 Airset Core Forming (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V006 - CORES MAKING
EV021 - AIRSET CORE FORMING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|-------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) (Fugitive) | 3.602 | .822 | .018 | .031 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V006 CORES MAKING, EV021 AIRSET CORE FORMING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV11 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV022 Small Valve Paint Booth (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

V007 - SMALL VALVE PRODUCTION
EV022 - SMALL VALVE PAINT BOOTH

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | .028 | .006 | .008 | .006 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | 5.942 | 1.357 | 1.629 | 1.357 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V007 - SMALL VALVE PRODUCTION
EV022 - SMALL VALVE PAINT BOOTH**

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| NAPHTHALENE, 91-20-3 | .007 | .002 | .002 | .002 |
| XYLENES (MIXED ISOMERS), 1330-20-7 | .585 | .134 | .16 | .134 |

End of emission summary for V007 SMALL VALVE PRODUCTION, EV022 SMALL VALVE PAINT BOOTH. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV12 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV023 Large Valve Coating (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V008 - LARGE VALVE PRODUCTION
EV023 - LARGE VALVE TOUCHUP COATING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | .153 | .035 | .042 | .035 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | 1.016 | .232 | .278 | .231 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| NAPHTHALENE, 91-20-3 | .001 | 3.17E-04 | 3.73E-04 | 3.11E-04 |
| XYLENES (MIXED ISOMERS), 1330-20-7 | .098 | .022 | .027 | .022 |

End of emission summary for V008 LARGE VALVE PRODUCTION, EV023LARGE VALVE TOUCHUP COATING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV13 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV024 Hydrant Paint Booth (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

V009 - HYDRANT PRODUCTION
EV024 - HYDRANT PRODUCTION PAINT BOOTH

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (PM10) | .095 | .022 | .026 | .022 |
| PARTICULATE MATTER (TSP) | .07 | .016 | .019 | .016 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | 24.149 | 5.513 | 6.615 | 5.513 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V009 - HYDRANT PRODUCTION
EV024 - HYDRANT PRODUCTION PAINT BOOTH**

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| ETHYL BENZENE, 100-41-4 | .318 | .073 | .087 | .073 |
| METHYL ETHYL KETONE, 78-93-3 | 3.683 | .841 | 1.009 | .841 |
| METHYL ISOBUTYL KETONE, 108-10-1 | 1.461 | .333 | .4 | .333 |
| NAPHTHALENE, 91-20-3 | .014 | .003 | .004 | .003 |
| TRIETHYLAMINE, 121-44-8 | .008 | .002 | .002 | .002 |
| XYLENES (MIXED ISOMERS), 1330-20-7 | 2.488 | .568 | .682 | .568 |

End of emission summary for V009 HYDRANT PRODUCTION, EV024HYDRANT PRODUCTION PAINT BOOTH. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|----------------------|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV14 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV025 Pangborn Rotoblast Cleaner (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| (Fugitive emissions) | | | | | |
| | | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V010 - R/S VALVE PRODUCTION
EV025 - PANGBORN ROTOBlast CLEANER**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | .958 | .219 | .281 | .219 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V010 R/S VALVE PRODUCTION, EV025 PANGBORN ROTOBlast CLEANER. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV15 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV026 Pangborn Airblast Cleaner (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V010 - R/S VALVE PRODUCTION
EV026 - PANGBORN AIRBLAST CLEANER**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | 3.379 | .771 | .991 | .771 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V010 R/S VALVE PRODUCTION, EV026 PANGBORN AIRBLAST CLEANER. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV16 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV027 GLA Conveyorized Oven (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008821

**Attachment to Form 70-28
Emission Summary****V010 - R/S VALVE PRODUCTION
EV027 - GLA CONVEYORIZED OVEN****Regulated air pollutants.**

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) | .18 | .041 | .04 | .041 |
| NITROGEN OXIDES (NOx) | .859 | .196 | .188 | .196 |
| PARTICULATE MATTER (TSP) | 5.151 | 1.176 | .023 | .024 |
| SULFUR DIOXIDE (SO2) | 34.339 | 7.84 | .001 | .001 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .045 | .01 | .01 | .01 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|-----------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | .002 | 4.16E-04 | 3.99E-04 | 4.16E-04 |
| FORMALDEHYDE, 50-00-0 | .004 | 8.23E-04 | 7.90E-04 | 8.23E-04 |
| TOLUENE, 108-88-3 | 9.10E-04 | 2.08E-04 | 1.99E-04 | 2.08E-04 |

End of emission summary for V010 R/S VALVE PRODUCTION, EV027 GLA CONVEYORIZED OVEN. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|-------------------------------------|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV17 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV028 Porbeck Oven (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008823



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V010 - R/S VALVE PRODUCTION
EV028 - PORBECK OVEN**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) | .172 | .039 | .038 | .039 |
| NITROGEN OXIDES (NOx) | .818 | .187 | .179 | .187 |
| PARTICULATE MATTER (TSP) | 4.914 | 1.122 | .022 | .022 |
| SULFUR DIOXIDE (SO2) | 32.762 | 7.48 | .001 | .001 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .043 | .01 | .009 | .01 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|-----------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | .002 | 3.96E-04 | 3.80E-04 | 3.96E-04 |
| FORMALDEHYDE, 50-00-0 | .003 | 7.84E-04 | 7.53E-04 | 7.84E-04 |
| TOLUENE, 108-88-3 | 8.67E-04 | 1.98E-04 | 1.90E-04 | 1.98E-04 |

End of emission summary for V010 R/S VALVE PRODUCTION, EV028 PORBECK OVEN. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | |
|---|---|---|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. |
| 2 | Stack ID or flow diagram point identification(s) | SV18 |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV029 - Line #1 Powder Coating (See Attachment) |

Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references.

| Air Pollutant | Maximum allowable emissions | | Actual emissions | |
|----------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Particulates (TSP) | | | | |
| (Fugitive emissions) | | | | |
| Sulfur dioxide | | | | |
| (Fugitive emissions) | | | | |
| Volatile organic compounds | | | | |
| (Fugitive emissions) | | | | |
| Carbon monoxide | | | | |
| (Fugitive emissions) | | | | |
| Lead | | | | |
| (Fugitive emissions) | | | | |
| Nitrogen oxides | | | | |
| (Fugitive emissions) | | | | |
| Total reduced sulfur | | | | |
| (Fugitive emissions) | | | | |
| Mercury | | | | |
| (Fugitive emissions) | | | | |
| Asbestos | | | | |
| (Fugitive emissions) | | | | |
| Beryllium | | | | |
| (Fugitive emissions) | | | | |
| Vinyl chloride | | | | |
| (Fugitive emissions) | | | | |
| Fluorides | | | | |
| (Fugitive emissions) | | | | |
| Gaseous fluorides | | | | |
| (Fugitive emissions) | | | | |
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MWPS008825



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V010 - R/S VALVE PRODUCTION
EV029 - LINE #1 POWDER COATING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | .46 | .105 | .101 | .105 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V010 R/S VALVE PRODUCTION, EV029 LINE #1 POWDER COATING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|---|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV19 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV030 - Line #2 Powder Coating (See Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008827



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V010 - R/S VALVE PRODUCTION
EV030 - LINE #2 POWDER COATING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|--------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (TSP) | .375 | .086 | .082 | .086 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V010 R/S VALVE PRODUCTION, EV030 LINE #2 POWDER COATING. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV20 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV031 Lead Kettle Melting (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008829



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV031 - LEAD KETTLE MELTING**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|-------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| LEAD (Fugitive) | 8.48E-05 | 1.94E-05 | 1.11E-05 | 1.94E-05 |
| PARTICULATE MATTER (TSP) (Fugitive) | .219 | .05 | 2.79E-05 | 4.84E-05 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|---------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| Not Applicable. | | | | |

End of emission summary for V011 ANCILLARY VALVE & HYDRANT PLANT OPERATIONS, EV031 LEAD KETTLE MELTING.
Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
|---|---|--|-----------------|------------------|-----------------|
| 2 | Stack ID or flow diagram point identification(s) | SV20 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV032 Lead Kettle Heating (see Attachment) | | | |
| Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | | |
| 4 | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008831



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV032 - LEAD KETTLE HEATING****Regulated air pollutants.**

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) | .026 | .006 | .003 | .006 |
| NITROGEN OXIDES (NOx) | .123 | .028 | .016 | .028 |
| PARTICULATE MATTER (TSP) | .738 | .169 | 6.42E-04 | .001 |
| SULFUR DIOXIDE (SO2) | 4.923 | 1.124 | 9.72E-05 | 1.69E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .007 | .001 | 8.55E-04 | .001 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|-----------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | 2.61E-04 | 5.96E-05 | 3.43E-05 | 5.96E-05 |
| FORMALDEHYDE, 50-00-0 | 5.17E-04 | 1.18E-04 | 6.80E-05 | 1.18E-04 |
| TOLUENE, 108-88-3 | 1.31E-04 | 2.98E-05 | 1.72E-05 | 2.98E-05 |

End of emission summary for V011 ANCILLARY VALVE & HYDRANT PLANT OPERATIONS, EV032 LEAD KETTLE HEATING.
Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
|---|---|---|-----------------|------------------|-----------------|
| 2 | Stack ID or flow diagram point identification(s) | SV21 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV033 RS Valve Burn-Off Oven (see Attachment) | | | |
| Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | | |
| Air Pollutant | | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| 4 | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008833



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV033 - R/S VALVE BURN-OFF OVEN**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) | .053 | .012 | .002 | .012 |
| NITROGEN OXIDES (NOx) | .252 | .058 | .009 | .058 |
| PARTICULATE MATTER (TSP) | 1.511 | .345 | .001 | .007 |
| SULFUR DIOXIDE (SO2) | 10.074 | 2.3 | 5.52E-05 | 3.45E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .013 | .003 | 4.86E-04 | .003 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|-----------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | 5.34E-04 | 1.22E-04 | 1.95E-05 | 1.22E-04 |
| FORMALDEHYDE, 50-00-0 | .001 | 2.42E-04 | 3.86E-05 | 2.42E-04 |
| TOLUENE, 108-88-3 | 2.67E-04 | 6.09E-05 | 9.75E-06 | 6.10E-05 |

End of emission summary for V011 ANCILLARY VALVE & HYDRANT PLANT OPERATIONS, EV033 R/S VALVE BURN-OFF OVEN.
Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV22 & SV23 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV034-35 Water Heaters in Bathhouse (see Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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MWPS008835



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary****V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV034-EV035 - HOT WATER HEATERS #1 AND #2**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| CARBON MONOXIDE (CO) | .035 | .008 | .006 | .008 |
| NITROGEN OXIDES (NOx) | .166 | .038 | .027 | .038 |
| PARTICULATE MATTER (TSP) | .999 | .228 | .003 | .005 |
| SULFUR DIOXIDE (SO2) | 6.658 | 1.52 | 1.64E-04 | 2.28E-04 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | .009 | .002 | .001 | .002 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|-----------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| BENZENE, 71-43-2 | 3.53E-04 | 8.06E-05 | 5.80E-05 | 8.05E-05 |
| FORMALDEHYDE, 50-00-0 | 6.99E-04 | 1.60E-04 | 1.15E-04 | 1.60E-04 |
| TOLUENE, 108-88-3 | 1.76E-04 | 4.03E-05 | 2.90E-05 | 4.03E-05 |

End of emission summary for V011 ANCILLARY VALVE & HYDRANT PLANT OPERATIONS, EV034-EV035 HOT WATER HEATERS #1 AND #2. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | SV24 | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV036 - Special Coating Paint Booth (See Attachment) | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV036 - SPECIAL COATING SPRAY BOOTH**

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| PARTICULATE MATTER (PM10) | .009 | .002 | .002 | .002 |
| PARTICULATE MATTER (TSP) | .007 | .002 | .002 | .002 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | 2.043 | .466 | .56 | .466 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.



UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

**V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV036 - SPECIAL COATING SPRAY BOOTH**

Regulated air pollutants that are hazardous air pollutant(s).

| Air Pollutant & CAS | Maximum allowable emissions | | Actual Emissions | |
|------------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| ETHYL BENZENE, 100-41-4 | .032 | .007 | .009 | .007 |
| METHYL ISOBUTYL KETONE, 108-10-1 | .146 | .033 | .04 | .033 |
| NAPHTHALENE, 91-20-3 | .001 | 3.12E-04 | 3.73E-04 | 3.11E-04 |
| TRIETHYLAMINE, 121-44-8 | 7.94E-04 | 1.81E-04 | 2.17E-04 | 1.81E-04 |
| XYLENES (MIXED ISOMERS), 1330-20-7 | .249 | .057 | .068 | .057 |

End of emission summary for V011 ANCILLARY VALVE & HYDRANT PLANT OPERATIONS, EV036SPECIAL COATING SPRAY BOOTH. Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Major Source Operating Permit Application
Emissions from process emission source/fuel burning equipment/incinerator

Form 70-28

| | | | | | |
|---|---|--|-----------------|------------------|-----------------|
| 1 | Facility name | U.S. Pipe and Foundry Company, Inc. | | | |
| 2 | Stack ID or flow diagram point identification(s) | Various Locations | | | |
| 3 | Process emission source/fuel burning equipment/incinerator (identify and include equipment identification number) | EV037-EV048 Parts Washers (Cold Solvent Cleaning). | | | |
| 4 | Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emissions factor references. | | | | |
| | Air Pollutant | Maximum allowable emissions | | Actual emissions | |
| | | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| | Particulates (TSP) | | | | |
| | (Fugitive emissions) | | | | |
| | Sulfur dioxide | | | | |
| | (Fugitive emissions) | | | | |
| | Volatile organic compounds | | | | |
| | (Fugitive emissions) | | | | |
| | Carbon monoxide | | | | |
| | (Fugitive emissions) | | | | |
| | Lead | | | | |
| | (Fugitive emissions) | | | | |
| | Nitrogen oxides | | | | |
| | (Fugitive emissions) | | | | |
| | Total reduced sulfur | | | | |
| | (Fugitive emissions) | | | | |
| | Mercury | | | | |
| | (Fugitive emissions) | | | | |
| | Asbestos | | | | |
| | (Fugitive emissions) | | | | |
| | Beryllium | | | | |
| | (Fugitive emissions) | | | | |
| | Vinyl chloride | | | | |
| | (Fugitive emissions) | | | | |
| | Fluorides | | | | |
| | (Fugitive emissions) | | | | |
| | Gaseous fluorides | | | | |
| | (Fugitive emissions) | | | | |
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UNITED STATES PIPE & FOUNDRY COMPANY

**Attachment to Form 70-28
Emission Summary**

V011 - ANCILLARY VALVE & HYDRANT PLANT OPERATIONS
EV037-EV048 - PARTS WASHERS

Regulated air pollutants.

| Air Pollutant | Maximum allowable emissions | | Actual Emissions | |
|----------------------------------|-----------------------------|-----------------|------------------|-----------------|
| | Tons per year | Pounds per hour | Tons per year | Pounds per hour |
| VOLATILE ORGANIC COMPOUNDS (VOC) | 3.275 | .748 | 1.621 | 1.621 |

Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.

Regulated air pollutants that are hazardous air pollutant(s).

End of emission summary for V011 ANCILLARY VALVE & HYDRANT PLANT OPERATIONS, EV037-EV048PARTS WASHERS.
Calculations and emission factor references are provided in the Emission Source Fact Sheet for the same emission source.